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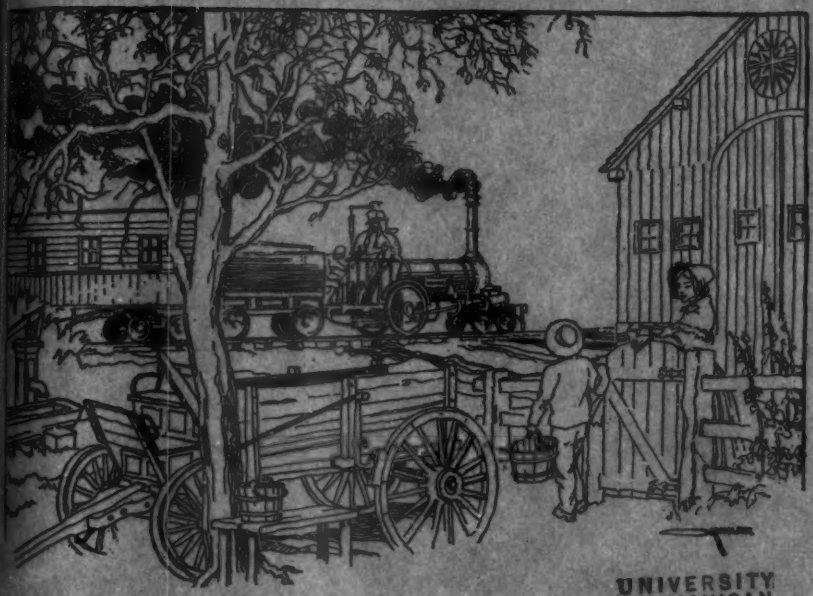

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THE RAILWAY AND LOCOMOTIVE HISTORICAL SOCIETY

OCTOBER 1959

BULLETIN No. 101

Pioneer Locomotives of North America

By Robert R. Brown

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The subject of the early locomotives imported to this country from England has always held great fascination for the research worker and has never been satisfactorily answered even today. Your Editor has made two attempts to list these locomotives. In Bulletin No. 20 appeared a list of these locomotives based on the U. S. List of 1838. In Bulletin No. 62 appeared another list in which the U. S. List of 1838 was compared with that of von Gerstner. In neither instance did your Editor have access to the records of the firms that built these locomotives.

Shortly after the close of World War II, the late Robert R. Brown called the attention of your Editor to his willingness to work up this material provided one could be found to do the research work. Both felt that information must be had from the English locomotive builders and this was finally obtained. As the work progressed, the cut-off date came up and it was decided to make the year 1840 the closing date. It was also decided to add a few descriptive notes about these early railroads—their termini, gauge, rail, etc.

The English builders lists were checked against the U. S. List of 1838, von Gerstner's work and the annual reports of the railroads. And these same sources were checked against the builder's lists. Probably about 90% of the locomotives were delivered to the railroads shown on the builders' lists but it was the small minority that made the trouble. The early Norris engines gave trouble for it was subsequently decided to include all of the locomotives on these railroads through 1840.

To present a bibliography of this work, one would need a list of all works on this subject in which this material might appear. I think your Editor has consulted every book of this type in the Baker Library as well as the files of the American R. R. Journal and other papers. It was a long search but, it was rewarded in many instances.

As for the author, I know of no one in this group that was better fitted and qualified than to undertake this work. Precision has always been a watchword with him and the care and pains with which some of these "lost" engines were followed, was in order that this work might be as complete as possible. We had to make some surmises and they are just that. If anyone can furnish the correct answers, your Editor would be glad to have them. Also, we are indebted to David Ibbotson for his work on the list of locomotives built in England taken from the builders' records. We are indebted to Mrs. Virginia T. Reilly, Librarian of the Baltimore & Ohio R. R. for information relative to the trials held in Baltimore. Only a small part of her notes have been used here and perhaps at some later date, all can be published. To Earl J. Heydinger we are also indebted for his further researches in the von Gerstner volumes as well as other data.

Shortly before his death, the author had typed the material for this article and it was prepared for publication. A last minute check found a duplication of construction numbers and it was during this interval that he passed away. Altho' your Editor fully realizes that some of our members will not be interested in these early locomotives, this publication is in the nature of a tribute to one of our greatest research workers in the matter of railway history. His passing is not only a great loss to his family but to this entire field as well.

Otto Kuhler has furnished us with an interesting cover design. The quaint barn yard scene with the "Washington" of the Philadelphia & Columbia R. R. in the background makes an attractive design. Those of you that live in Pennsylvania should know the meaning of that sign on the barn. I wonder if our other members know its meaning. And, I'm wondering if many of us would not welcome a steam locomotive at such close quarters—just because!

Pioneer Locomotives of North America

ROBERT R. BROWN

With the glorious Age of the Steam Locomotive rapidly and unhappily drawing to a close, it seems appropriate, at this time, to give some thought to the earliest beginnings of the era. The idea of tracing the history of the pioneer locomotives of North America originated a long time ago and, from time-to-time as the years passed, relevant information was filed or indexed for possible future use, but it always seemed that the task would be a too formidable one. Useful rosters have been published but, in most cases, they covered only the origins of the locomotives and give little or no subsequent history. This never satisfied me—while important enough as a starting point, the construction record of a locomotive is about as uninteresting as the birth certificate of an old and famous man. Eventually, however, an astonishingly large amount of data was accumulated and then began the laborious task of analyzing the material and piecing it together like the bits of a jigsaw puzzle. In this operation I have committed the (to some historians) unpardonable sin of indulging in a certain amount of surmise but for this I believe no apology is needed and none is offered because every instance is clearly indicated and without such surmise there would be no story. It would be idle to pretend that this is a definitive history; nearly forty years of research have taught me that a complete history has never been written and probably never will be and I am only too conscious of the shortcomings of this work. Some will quarrel with opinions expressed; it is certain there will be some errors and, of course, much additional and more accurate information will come to light later but, if the following rosters succeed in arousing interest and induce members in all parts of the country to delve into the early history of their own region, then I will be content with the knowledge that some real good has been accomplished.

In some areas, the New England states for example, information is readily obtainable but in others, especially the lower Mississippi valley, the gulf coast and in the south-eastern coastal states, it is very difficult and often impossible. This suggests important fields for research by local rail historians but, so far as I have been able to discover, little has been done.

Several members of the society have been very helpful: so-much-so that without their enthusiastic cooperation the project would not have materialized at all. No question of mine was too difficult for Mr. Charles E. Fisher and he never failed to produce either an immediate answer or a suggestion which invariably led to a reasonable solution of the problem. Mr. Earl J. Heydinger, one of the most efficient research workers in the field of ferroequinology, was particularly helpful in tracing the history of the early railroads and locomotives in Pennsylvania, and Mr. Walter Rumsey Marvin was instrumental in clearing up some serious misconceptions concerning the locomotive SANDUSKY and the origin of the Ohio gauge. Mr. David Ibbotson has been working

for some years compiling lists of locomotives sent to North American railroads by various British builders and the scope of his work indicates not only a careful reexamination of previously known data but the development of hitherto untouched sources now made available by builders who apparently are much more cooperative than formerly. His material has been of great value in checking the origins of British-built locomotives, including some not known previously.

The actual preparation of this material extended over a period of six or seven years and a voluminous correspondence was carried on with many individuals and companies. It is a pleasure to acknowledge gratefully the willing and helpful response in nearly every case but it was a great disappointment when three or four prominent rail historians, who undoubtedly could have been helpful, did not bother even to acknowledge receipt of letters.

One of the peculiarities of early locomotive history was that some engines ran for a very long time—30, 40 and even 50 years—while others dropped from sight almost immediately; this being especially true in the case of some imported from England. It is easy to accept the oft-mentioned statement that they reached a state of obsolescence at a very early date and were scrapped but such an assumption is unsatisfactory since the locomotives represented a substantial capital investment which railroad managers would hesitate to lose through the retirement of the equipment. The wheel arrangement of many of the early British locomotives made them unsuitable for the rough and uneven strap iron rails of American railroads but otherwise they were well-built and, with minor alterations, were capable of good service for many years. It is a difficult matter to prove, at this late date, but there is good reason to believe that many of the "missing" locomotives were sent to American builders to be converted to 4-2-0 type, usually a simple job, and subsequently were considered to have been built by such builders. This was due partly to self-aggrandizement on the part of the American builders but much was due to anglophobia which was very prevalent in some areas.

As a basis for this work, there were two remarkable early records:

1. Report on steam engine, document no. 21, Treasury Dept., U. S. A., December 1838 (R&LHS Bulletin no. 6).
2. Records of Franz Anton von Gerstner of his visits to American railroads in 1839.

It is impossible to exaggerate the value and importance of these sources and an early consolidation of the two was the actual starting point for this work. The 1838 report of Knight and Latrobe (R&LHS Bulletin 13) is also valuable but limited in its scope. The roster in Bulletin no. 20 was a consolidation of the various early sources, arranged chronologically, and is a very useful reference work. It comprised all the information known at that time (1929). Builders' records, where available, were of great value, not only as a check on the U. S. Treasury Report and von Gerstner's records but also as a source of much additional information.

The loss, many years ago, of the Norris records and the conflicting testimony of later accounts, have created many difficulties and, in some cases, it has been impossible to determine what is true and what is not. Consequently any statements concerning early Norris engines which cannot be corroborated by other sources must be considered suspect until some contemporary proof is found. Those wishing to delve more deeply into the problem should consult R&LHS Bulletins 10 and 79. There is a reasonable presumption that quite a few locomotives usually thought to have been Norris-built were, in fact, older engines, usually of British origin, which were only rebuilt by Norris—converted from unsatisfactory 2-2-0, 2-2-2, 0-4-0 or 0-4-2 types to the flexible and superior 4-2-0 wheel arrangement.

The following is a tentative reconstruction of the list of the earliest locomotives built by Long and Norris:

1. The first built by Col. Long, the PENNSYLVANIA LOCOMOTOR, was completed in June 1831 and was tried on the Newcastle and Frenchtown Railroad. It failed and was rebuilt with a new boiler and tested again April 10, 1832, still without success and, finally, was laid aside in 1833. There is good reason to believe, however, that some of its parts were used to build another locomotive or perhaps it was just rebuilt with a new boiler.
2. The GREEN HAWK was completed in the autumn of 1832;
3. the BLACK HAWK and another, the name of which is
4. unknown, were finished about June 1833. They were tried on the Philadelphia and Columbia and at least one of them on the Philadelphia, Germantown and Norristown but, having been designed to burn anthracite, which was not properly understood, they were not successful.
5. Later in 1833, a small 2-2-0T locomotive, named the PENNSYLVANIA, was built for the Philadelphia, Germantown and Norristown. It is usually thought to have been a new engine but there is good reason to suppose that actually it was a conversion of Stephenson's PENNSYLVANIA.
6. Probably the only new locomotive built in 1834 was the STAR for the Philadelphia, Germantown and Norristown and it seems to have been satisfactory.

In 1835, Long and Norris shipped four locomotives to the New England states; the COL. LONG to the Boston and Worcester, and the CANTON, DEDHAM and LINCOLN to the Boston and Providence. The COL. LONG was given a fair trial but the Boston and Worcester would not buy it, so it too went to the Boston and Providence where it was renamed (or perhaps resumed its old name of) BLACK HAWK. It is possible that these four were new but it is much more likely that they were nos. 1, 2, 3 and 4 of this list, rebuilt and improved. This is partly substantiated by

the fact that they were anthracite burners and consequently not popular in a land where all locomotives were wood-burners. They were used for a short time in work train service and seem to have performed reasonably well but they were retired soon after. They were overlooked by the Treasury Report of 1838 and by von Gerstner in 1839 and one can guess that the company was trying to forget that it ever owned them. Later, they were rebuilt as wood-burners and ran for many years.

7. Three were built in 1835; the JOHN BARNETT for the
8. Portsmouth and Roanoke; the PHILADELPHIA for the
9. Boston and Providence and the WILLIAM PENN for the Philadelphia and Columbia. The WILLIAM PENN was not listed in the Treasury Report of 1838 but it did appear in the roster of a company report, dated October 31, 1838, so the omission must have been an oversight.

From this point on, the Norris locomotives can be checked reasonably well by his quantative list of 1841.

In tracing the history of individual locomotives, I have not made much effort to prove the existence of locomotives whose existence has been long established and whose history is well known. However, I have tried to trace all the doubtful ones and many conflicting stories were discovered and, where available information permits, these discrepancies are discussed in some detail.

Original wheel arrangements are given, when possible, and it is believed that in this respect the roster is fairly free from error. Original dimensions of cylinders and driving wheels are given when possible and these are reasonably accurate but it must be remembered that the early locomotives were rebuilt frequently and often we find two or three different sets of dimensions for one locomotive.

To indicate the sources of information, a number of simple symbols are used which are practically self-explanatory:

B—Builders' records.
C—Company reports and records.
K—Report of Knight and Latrobe in 1838.
U—U. S. Treasury Report of 1838.
V—Records of von Gerstner in 1839.

Brief historical notes about each railroad are given in the hope that they will be useful for reference. Considerable difficulty was encountered in trying to ascertain the original gauge of some railroads and quite a few are still in doubt.

Finally, it is probable that many readers will be able to send in additional information and probably correct mistakes and we earnestly request that they do so, including substantiating proof when possible.

ALABAMA, FLORIDA AND GEORGIA RAIL ROAD COMPANY

Pensacola, Fla. Montgomery, Ala. 141 miles

Original gauge 4′ 8½″ (?)
Strap rails 2½″x¾″

1834 Florida, Alabama and Georgia Rail Road incorporated to build from Pensacola northward.
1835 Name changed to Alabama, Florida and Georgia Rail Road.
1836 Considerable grading done and short sections of track laid.
1838 Project abandoned. Road never operated.

?1 2-2-0 1836 Locks and Canals
?2 2-2-0 1836 Locks and Canals

Von Gerstner reported two locomotives which were part of an order for 6 from the Props. of Locks and Canals (per ARRJ). According to the Pensacola Historical Society, they were redeemed by northern bankers and returned to the builders.

See R&LHS Bulletin 86.

ALEXANDRIA AND CHENEYVILLE RAILROAD

Alexandria, La. Cheneyville, La. 20 miles

Original gauge 4′ 8½″ (?)

1837 Incorporated
1839 6 miles completed

Von Gerstner reported two locomotives on this road but they cannot be identified with any degree of certainty. A careful consideration of the "Overs" and "Shorts" suggests that they were bought second hand, as follows:

WEST FELICIANA 4-2-0 1836 Baldwin #54
Bought in 1838 from the West Feliciana R. R.
NEW ORLEANS 4-2-0 1838 Norris
Bought in 1838 from the Mexican Gulf R. R.

But it is equally possible that the engines were bought from the defunct Lake Wimico and St. Joseph Canal and Railroad Company.

It is hoped that local research by members and other rail historians in Louisiana may clear up this mystery.

ALLEGHENY PORTAGE RAILROAD

Johnstown, Pa. Hollidaysburg, Pa. 36.69 miles

Original gauge 4′ 9″
Bullhead rails 42#

1830 Dec. Western Division of the Pennsylvania Canal opened from Johnstown to Pittsburgh.
1831 Mar. 21 Board of Canal Commissioners authorized to build a portage railroad over the Allegheny Mountains.
1831 Apr. 8 Construction started.
1833 Nov. 26 First car over the road.
1834 Mar. 18 Opened as a public highway.

1834	Apr. 22	Commissioners authorized to buy five locomotives.
1835	Apr.	Second track completed.
1835	May 10	First run of the locomotive BOSTON.
1835	May 11	Operation of the road as a public highway discontinued and all future hauling to be done only by locomotives supplied by the state.

R&LHS Bulletins 44, pp. 6-23, and 53, p. 67.

BOSTON	4-2-0	8x16	48"	1834	R. M. Bouton	CUV

The BOSTON is probably the engine of the same name from the Boston & Worcester R. R., rebuilt by R. M. Bouton of the Mill Dam Foundry.

BACKWOODSMAN	4-2-0	1836	McClurg, Wade	CUV
PITTSBURGH	4-2-0	1837	McClurg, Wade	CUV
MOUNTAINEER	4-2-0	1837	McClurg, Wade	CUV
CONEMAUGH	4-2-0	1837	McClurg, Wade	U
re PENNSYLVANIA	ca. 1839			C V
ALLEGHENY		1835	E. A. G. Young	CUV
COMET		1836	E. A. G. Young	CUV
DELAWARE		1833	E. A. G. Young	U
re TENNESSEE	ca. 1839			
GEORGE WASHINGTON	4-2-0	1836	Norris	BCUV
BENJAMIN FRANKLIN	4-2-0	1836	Norris	BCUV
ROBERT MORRIS	4-2-0	1836	Norris	BCUV
BUSH HILL	4-2-0	1837	Norris	BCUV
INDEPENDENCE	4-2-0	1837	Norris	BCUV
JAMES MADISON	4-2-0	1837	Norris	BCUV
LAFAYETTE	4-2-0	1837	Norris	BCUV
UNITED STATES	4-2-0	1837	Norris	BCUV
CONSTITUTION	4-2-0	1837	Norris	BCUV
JAMES CLARK	4-2-0	1840	D. H. Dotterer	C
DAVID R. PORTER	4-2-0	1840	D. H. Dotterer	C

Also the following transferred from the Philadelphia and Columbia R. R. in 1845:

KENTUCKY	4-2-0	1835	Baldwin #14	C
OHIO	4-2-0	1835	Baldwin #22	C
PAOLI	4-2-0	1837	Baldwin #65	C

The late C. F. Dendy Marshall, in his "Two Essays in Early Locomotive History," quoted an article in 'The Locomotive' for October 1910 which claimed that the DELAWARE, ALLEGHENY and COMET were built by Braithwaite, Milner & Co., but all other known authorities state they were built by E. A. G. Young, of Newcastle, Delaware. However, the construction dates suggest that they were second hand locomotives possibly only rebuilt by Young. There is a reasonable presumption that the COMET was the engine of the same name built by Stephenson in 1834 for the Philadelphia and Columbia R. R. and rebuilt by Young in 1836. It is equally likely that the ALLEGHENY and the DELAWARE were similarly rebuilt and perhaps originally built by Braithwaite, Milner.

The Norris engines all saw some service on the Philadelphia and Columbia R. R. before being transferred to the Portage Railroad.

ANNAPOLIS AND ELK RIDGE RAILROAD

Annapolis, Md. Elk Ridge, Md. 20.5 miles

Original gauge 4′ 8½″

1837 Mar. 21 Incorporated
1840 Dec. 26 Completed

Annapolis	4-2-0	1840	Baldwin #143	BV
Carroll	4-2-0	1840	Baldwin #141	BV

In 1839, von Gerstner reported two locomotives on the road and either he counted the Carroll and the Annapolis which were under construction and expected soon or there were two other engines of which we have no record.

According to the late Inglis Stuart, these two locomotives were seized by creditors in 1842, rebuilt as 4-4-0 type by Henry R. Campbell and sold to the Long Island Railroad as the Crabb and the Chichester.

AUBURN AND ROCHESTER RAILROAD

Auburn, N. Y. Rochester, N. Y. 78.5 miles

Original gauge 4′9″ (?)

1836 May 13 Incorporated
1840 Completed from Rochester to Canandaigua
1841 Completed from Rochester to Seneca Falls
1841 Nov. 4 Completed from Rochester to Auburn

No. 1	4-4-0	1840	Rogers, K & G #23	B
2	4-2-0	1840	Norris	B
3	4-2-0	1840	Norris	B
4	4-2-0	1840	Norris	B
5	4-2-0	1840	Norris	B

AUBURN AND SYRACUSE RAILROAD

Syracuse, N. Y. Auburn 26.1 miles

Original gauge 4′ 9″ (?)
Strap iron rails

1834 May 1 Incorporated
1838 Jan. Completed

Syracuse	4-2-0	10½x18	1838	Rogers, K & G #7	B
Auburn	4-2-0	10½x18	1838	Rogers, K & G #8	B
Cayuga	4-2-0	10½x18	1839	Rogers, K & G #14	B
Owasco	4-2-0		1840	Dennis, Thomas & Wood	
Wyoming	4-2-0		1840	Dennis, Wood & Russell	

The Owasco and the Wyoming were built in Cayuga, N. Y., and the variation in the builders' firm names is curious. Presumably there was a change in the partnership during the year or perhaps, as was often done in the old days, a separate partnership agreement was drawn up for each contract.

BALTIMORE AND OHIO RAILROAD

Baltimore, Md.	Harper's Ferry, W. Va.	83
Frederick branch		4
Washington branch		27

Original gauge 4′ 6″

Strap rails used originally but by 1839 had been replaced by 56# T rails.

1827	Feb. 12	Meeting in Baltimore to consider the building of a railroad to the Ohio River.
1827	Feb. 28	Incorporation of the Baltimore and Ohio Railroad by the state of Maryland.
1828	July 4	Construction started by the laying of the first stone. Surveys started three days later.
1828	Nov.	The company sent Jonathan Knight, Ross Winans, William McNeil and George W. Whistler to England to examine "Minutely English track construction and locomotive development."
1829	Sept.	TOM THUMB, the first locomotive built in America for regular service, tested successfully.
1830	Jan. 7	Railroad opened from Baltimore to the Carrollton Viaduct.
1830	May 24	Opened to Ellicott's Mills.
1831	Jan.	Prize of $4,000.00 offered to the best locomotive.
1831	Mar. 2	Washington branch authorized.
1831	June 27	Locomotive contest held.
1832	April	Completed from Baltimore to Point of Rocks.
1832	Dec. 1	Opened to Frederick, Md.
1834	Dec. 1	Completed to Harper's Ferry.
1835	Aug. 24	Branch completed from Relay, Md., to Washington, D. C.

AMERICA 0-6-0 11x20″ 51″ 1829 Stephenson #17

A duplicate of the "Darlington A" built for the Stockton and Darlington Railway. It is not certain whether this locomotive was ordered by the Baltimore & Ohio Railroad as a result of the visit by Messrs. Knight, Winans, McNeil and Whistler to George Stephenson and to the Stockton and Darlington Railway or that it was sent out by the builder in hope of finding a purchaser. Unfortunately, the engine was lost at sea and never reached its destination.

TOM THUMB 0-4-0 3¼x14½ 30″ 1829 Peter Cooper, N.Y.

Experimental locomotive with vertical boiler. See R&LHS Bulletin no. 73.

YORK 0-4-0 30″ 1831 Phineas Davis and Israel Gartner, York, Pa.

This locomotive won the first prize of $4,000.00 after performing successfully in the contest. The cylinders were bolted to the top of the sides of the vertical boiler and the main rods were connected to pins at the middle of the side rods which, although braced against the alternating lateral thrust, must have been severely strained. Soon after the contest, the YORK was rebuilt by Charles Reeder, of Baltimore. The cylinders were re-located on the back of the boiler and drove through spur gears to the rear axle. The engine weighed only 3½ tons and was too light for regular service.

JOHNSON 2-2-0 1831 Geo. W. Johnson, Baltimore

Awarded the second prize of $1,000.00. It had a horizontal boiler and twin vertical cylinders at rear of fire box working upward to small walking beams, similar to those used on steamboats. Although a prize-winner, the JOHNSON does not seem to have been used in regular service.

CHILDS 2-2-0 Rotary 1831 Ezekiel Childs. Philadelphia

An early turbine engine. Entered in contest but did not qualify.

COSTELL 0-4-0 1831 Stacey Costell, Philadelphia

Entered in contest but did not qualify.

HALLOWAY 1831 Thomas Halloway

Intended for entry in contest but not completed.

JAMES I 0-4-0 1831 Wm. T. James, New York

William James was a stove manufacturer and is said to have built, in 1830, a steam-operated vehicle for use on common roads—possibly the first American automobile. The locomotive JAMES I was not a great success; it had a vertical conical boiler, two vertical cylinders working upward to an overhead jack-shaft which transmitted power to the driving wheels by means of a triangular combined connecting and side rods. The arrangement was ingenious but probably troublesome.

JAMES II 2-2-0 1831 Wm. T. James, New York

Larger and heavier than the JAMES I but possibly contained some parts of the earlier engine. It had a vertical conical boiler and inclined cylinders. The JAMES II was bought by the road and it ran successfully for about five years. It was the first locomotive used in regular service on the B. & O.

ATLANTIC	2-2-0	10x20 36″	9/1832	Davis & Gartner
INDIAN CHIEF re TRAVELLER	2-2-0	10x20 36″	1832	Davis & Gartner

These two were the first of the 'Grasshopper' type and were soon followed by nine similar but larger engines, which had their wheels coupled to increase their hauling capacity. The INDIAN CHIEF was rebuilt and renamed in 10/1833.

1.	**ARABIAN**	0-4-0	12x22 36″	7/1834	Phineas Davis UV
2.	**GEORGE WASHINGTON**	0-4-0	12¼x22 36″	10/1834	Phineas Davis UV
	MERCURY	0-4-0	12¼x22 36″	10/1834	Phineas Davis UV

The MERCURY disappeared at an early date, probably about 1839.

ANTELOPE	0-4-0	12¼x22 36″	1834	Charles Reeder
AMERICAN	0-4-0	12¼x22 36″	1834	Charles Reeder

One of these locomotives exploded, while being tested, and Reeder was killed. The surviving engine was refused by the B. & O. and its disposition is not known.

	JOHN ADAMS	0-4-0	12¼x22	36″	5/1835	Phineas Davis UV

The JOHN ADAMS disappeared at an early date but possibly it was rebuilt and renamed JOHN QUINCY ADAMS.

3.	THOMAS JEFFERSON	0-4-0	12¼x22	36″	6/1835	Phineas Davis UV
4.	JAMES MADISON	0-4-0	12¼x22	36″	6/1835	Phineas Davis UV
5.	JAMES MONROE	0-4-0	12¼x22	36″	6/1835	Phineas Davis UV
6.	JOHN QUINCY ADAMS	0-4-0	12¼x22	36″	6/1835	Phineas Davis UV
7.	ANDREW JACKSON	0-4-0	12½x22	36″	2/1836	Phineas Davis UV
8.	JOHN HANCOCK	0-4-0	12½x22	36″	4/1836	Gillingham & Winans UV
9.	PHINEAS DAVIS	0-4-0	12½x22	36″	8/1836	Gillingham & Winans UV
10.	GEORGE CLINTON	0-4-0	12½x22	36″	8/1836	Gillingham & Winans UV
11.	MARTIN VAN BUREN	0-4-0	12½x22	36″	11/1836	Gillingham & Winans UV
12.	BENJAMIN FRANKLIN	0-4-0	12½x22	36″	4/1837	Gillingham & Winans UV

Nos. 8 to 12 were "Crab" type

13.	LAFAYETTE	4-2-0	10x20	48″	4/1837	Wm. Norris BV

"One arm Billy" type. First on the road with a horizontal boiler. Originally Washington Branch no. 1.

14.	WILLIAM PATTERSON	0-4-0	12½x22	36″	6/1837	Gillingham & Winans UV
15.	ISAAC McKIM	0-4-0	12½x22	36″	5/1838	Gillingham & Winans UV

"Crab" type.

16.	PHILIP E. THOMAS	4-2-0	10x20	48″	6/1838	Wm. Norris BV

Originally Washington Branch no. 2.

17.	MAZEPPA	0-4-0	15x24	36″	10/1838	Gillingham & Winans V

Ex no. 15.

18.	J. W. PATTERSON	4-2-0	10x20	48″	10/1838	Wm. Norris BV

Originally Washington Branch no. 3.

19.	WILLIAM COOKE	4-2-0	10x20	48″	12/1838	Wm. Norris BV

Ex no. 16.

20.	PATAPSCO	4-2-0	10½x18	48″	7/1839	Wm. Norris B

Ex no. 17.

21.	MONOCACY	4-2-0	10½x18	48″	7/1839	Wm. Norris B

Ex no. 18.

22.	POTOMAC	4-2-0	10½x18	48″	8/1839	Wm. Norris B

Ex no. 19.

23.	ATLAS	4-4-0	12½x20	50″	9/1839	Eastwick & Harrison

Ex no. 20.

24.	PEGASUS	4-4-0	10½x18	48″	11/1839	Wm. Norris B

Ex no. 21.

25. VESTA	4-4-0	10½x18	48″	11/1839	Wm. Norris	B
	Ex no. 22.					
26. VULCAN	4-4-0	12½x20	50″	7/1840	Eastwick & Harrison	
	Ex no. 23.					
27. JUPITER	4-4-0	12½x20	50″	2/1840	Eastwick & Harrison	
	Ex no. 24.					
28. ARROW	4-4-0			2/1840	Newcastle	

Early in 1832, a locomotive was built, under the direction of Minus Ward, in the machine shop of Messrs. Mayger & Washington. It was delivered to the B. & O. on March 19th but, as there were no further references to it, presumably it was a failure.

Three of the early Baltimore and Ohio locomotives are still in existence; the JOHN QUINCY ADAMS, the ANDREW JACKSON and the JOHN HANCOCK. Together with the MARTIN VAN BUREN, since destroyed, they were in service at Mount Clare, Baltimore, in 1892, when the railroad decided to recondition them for the Chicago Exhibition of 1893. Unfortunately, however, they were renamed at that time and this has been a source of great confusion to later rail historians:

JOHN QUINCY ADAMS	renamed TRAVELLER
ANDREW JACKSON	renamed ATLANTIC
JOHN HANCOCK	renamed THOMAS JEFFERSON
MARTIN VAN BUREN	renamed MAZEPPA

The JOHN QUINCY ADAMS, the oldest complete American-built locomotive, is now known incorrectly as no. 1 and has no name. It is now on display in Carillon Park in Dayton, Ohio. The ANDREW JACKSON, still bearing the incorrect name ATLANTIC, and the JOHN HANCOCK, with its proper name restored after many years, are kept in the B. & O. Museum at Baltimore. (Bulletin 210—United States National Museum).

BALTIMORE & SUSQUEHANNA RAILROAD

Baltimore, Md. York, Pa. 58 miles
Original gauge 4′ 9½″
Iron T rails 58#

1828	Mar. 13	Incorporated
1832		Construction started
1838		Completed

HERALD	0-4-0	10x14″	48″	1831	Stephenson #7	BUV

Arrived in July, 1832 on the ship "Herald." First run about the end of August but it was subsequently rebuilt to 4-2-0 type by Ross Winans. Scrapped in 1850.

BALTIMORE re CHIEFTAIN	2-4-0	15x16″	54″	1836	Stephenson #151	BUV
SUSQUEHANNA re SAMSON	2-4-0	15x16″	54″	1836	Stephenson #152	BUV

Illustrated in Ahron's "The British Steam Locomotive," page 40, fig. 37. Subsequently converted to 4-4-0 type.

MARYLAND	0-4-0	12x18″ 48″	1837	Locks & Canals	UV
SUSQUEHANNA	0-4-0	12x18″ 48″	1837	Locks & Canals	UV
HOWARD	0-4-0	12x18″ 48″	1837	Locks & Canals	UV

Probably rebuilt to 4-2-0 type.

PITTSBURGH	2-2-0	11x16″ 54″	1837	Locks & Canals	V
OSCEOLA	2-2-0	11x16″ 54″	1837	Locks & Canals	V

Probably rebuilt to 4-2-0 type.

BALTIMORE	0-4-0	13¼x18″ 54″	1837	Locks & Canals	UV

Probably rebuilt to 4-2-0 type.

PENNSYLVANIA	2-2-0	11x16″ 48″	1838	Locks & Canals	V

Probably rebuilt to 4-2-0 type.

YORK	0-4-0	13¼x18″ 60″	1839	Locks & Canals	V

Probably rebuilt to 4-2-0 type.

ATLANTIC	4-2-0(?)		1839	Coleman, Sellars	

BANGOR AND PISCATAQUIS RAILROAD AND CANAL COMPANY

Bangor, Me. Old Town 11 miles

Original gauge 4′ 8½″
Strap iron rails

1832 Old Town Railway Company chartered to build from Bangor to Old Town. An immediate start was made; bridge piers were built and some grading and other construction work was done.

1833 Bangor and Piscataquis Canal and Railroad Company chartered to build from Bangor, via Old Town, to the slate quarries at Williamsburg, in Piscataquis county. This enterprise was promoted by Edward and Samuel Smith, of Bangor, and was financed and controlled by Boston capitalists.

1835 The Old Town Railway sold its franchise to the Bangor and Piscataquis Canal and Railroad Company and the construction work was resumed.

1836 Nov. Railroad completed from Bangor to Old Town. It ran via Stillwater and entered Bangor along Harlow and Exchange Streets to the wharves.

PIONEER	2-2-0 10x16 60″ 20 H. P. 7½ tons		Stephenson	UV

The origin of this locomotive is something of a mystery. Many authorities, including Whishaw, assert it was built by Rothwell; perhaps assuming that it was Rothwell's no. 4, also named the PIONEER but built for the Petersburg Railroad in Virginia. There is a photograph of the Bangor PIONEER and in Ahrons', "The British Locomotive," there is a line drawing of the Petersburg PIONEER and it is very obvious that they were not the same engine. The photograph shows clearly that the Bangor PIONEER was a standard Stephenson Planet 2-2-0 type but unfortunately it cannot be traced in the records of Robert Stephenson and Company. Evidently it was bought second hand or was diverted from some other buyer. Proof is lacking but there is a reasonable presumption that it was the METEOR built by Stephenson in 1832 for the Boston and Worcester Railroad. It was scrapped in 1867.

BANGOR	2-2-0	15x16	54"	1836	Rothwell #6	BUV
	20 H. P.					

Apparently the builder's plate, with the number 6, was in a prominent position because the engine was known usually as "NUMBER SIX." It was also called the BIB SMITH. It did not last long and, presumably, it was destroyed in a wreck at an early date.

BEAVER MEADOW RAILROAD

Parryville, Pa. Beaver Meadow, Pa. 26 miles

Original gauge 4' 8½"
Strap iron rails 2⅛"x⅝"

1830 Apr. 7 Incorporated
1833 Construction started
1836 Completed
1841 Parryville to Lousy Bay (East Mauch Chunk) destroyed by spring freshets and abandoned.

No. 1	Samuel D. Ingham	4-2-0	10x20 60"	1835	Garrett & Eastwick	V
2	Elias Eley	4-2-0	10x20 60"	1835	Garrett & Eastwick	V
3	Quakake	4-2-0		1836	Garrett & Eastwick	V
4	Beaver	0-4-0		1837	Garrett & Eastwick	V
5	Hercules	4-4-0		1837	Garrett & Eastwick	
6	Nonpareil	0-6-0		1838	Beaver Meadow RR	V

The Nonpareil was built in the company shops under the direction of Hopkin Thomas.

See R&LHS Bulletin no. 42, p. 34.

BOSTON AND LOWELL RAILROAD

Boston, Mass. Lowell 26.76 miles

Original gauge 4' 8½"
Iron T rails 57#

1830 June 5 Incorporated
1835 June 24 Completed

STEPHENSON	0-4-0	10x14	48"	1831	Stephenson #8	BKUV

First run May 27, 1835; scrapped 1840.

There is a great difference of opinion about the wheel arrangement of this locomotive; the 0-2-2, 2-2-0 and 0-4-0 types each having their advocates and, until some better proof is found, it will have to remain in doubt. One important bit of evidence was a letter written on February 9th, 1839 by P. T. Jackson, treasurer of the Proprietors of the Locks and Canals on Merrimack River, to Robert Stephenson (R&LHS Bulletin no. 4):

> "In the year 1832 I imported from England two Locomotive Engines of your manufacture one of about 10, the other 8 ton weight. Being delayed much longer than I expected in opening the road I was then commencing (the B & L) I sold the small Engine to the Boston & Providence Rail Rd. Company; it is still running on their road and is, in my opinion, fully equal if not superior, to any one they have, and they have them from at least five different builders. The larger Engine I used in moving earth while grading our road on temporary tracts (sic), which is hard duty, and since the road has been open in 1834, have used it for transporting merchandise, and it has never been in our shop for a general overhaul and repair until last month."

Unfortunately this letter does not reveal the type or wheel arrangement but the different weights suggest that the smaller one was a passenger engine and the larger one was intended for freight service.

A recent examination of the builder's records by our fellow-member, Mr. David Ibbotson, indicated that the two locomotives purchased by the Props. of Locks and Canals in 1832 were a 0-2-2 NORTHUMBRIAN type which went to the Boston and Lowell Railroad and a 0-4-0 SAMSON type which went to the Boston and Providence R. R. This is partly confirmed by the picture of the first locomotive on the Boston and Lowell R. R., published in Bulletin no. 31, which, though inaccurate as to details, clearly depicted a 0-2-2 NORTHUMBRIAN type. This would be conclusive but unfortunately there is other contrary evidence.

The 1838 "Report upon the Locomotive Engines, etc." by J. Knight and Benj. H. Latrobe (Bulletin no. 13) stated positively that the engine which went to the Boston and Providence was a 2-2-0 PLANET type; in fact they grouped it with two Locks and Canals engines of identical design and dimensions. This immediately casts doubt on the accuracy of the builder's records. It also suggests that it served as a model for the 2-2-0 type engines built by Props. of Locks and Canals.

Unfortunately Messrs. Knight and Latrobe did not give as much information about the Boston and Lowell but they did say:

> "Of these machines the company have 6, of which 5 (including the PATRICK, hereafter mentioned) are exactly alike. The sixth is of Stevenson's (sic), and weighs a little over 20,000 lbs. and it took on one occasion, 47 cars of merchandise to Lowell, in two hours and a half; the load being equal to 205 tons of 2240 lbs each."

This refutes the claim made by some rail historians that all the Boston and Lowell engines were alike and it also implies that the STEPHENSON was more powerful than the others.

Stephenson was then building two types of locomotives—2-2-0 PLANETS for passenger service and 0-4-0 SAMSONS for freight service, and it is reasonable to suppose that in response to a trial order from the United States he would send his latest types.

Mr. C. F. Dendy Marshall, in his "Two Essays in Early Locomotive History," stated, page 53, the MAJESTIC, delivered to the Liverpool and Manchester Ry., in November 1830 was the last 0-2-2 NORTHUMBRIAN type built. The first 2-2-0, the PLANET, was delivered to the Liverpool and Manchester in October 1830 and the SAMSON, the first 0-4-0, in February 1831. From November 1830, when the last 0-2-2 type was built, until April 1834, when the 2-2-2 PATENTEE was completed, there is no record of Stephenson having built anything other than the 2-2-0 and 0-4-0 types. There is no reason to suppose that Stephenson built an obsolete type for the Props. of Locks and Canals especially when he had already built or was then building 2-2-0 PLANET types for the Philadelphia, Germantown and Norristown R. R., and the Newcastle and Frenchtown R. R. and 0-4-0 SAMSON types for the Baltimore and Susquehanna, the Mohawk and Hudson and the Camden and Amboy Railroads. It is likely that the HERALD, built for the Baltimore and Susquehanna (builder's no. 7) and the STEPHENSON of the Boston and Lowell (builder's no. 8) were identical and perhaps too the JOHN BULL of the Mohawk and Hudson (builder's no. 24).

And as a final bit of evidence, Mr. Dendy Marshall, an unusually reliable authority, stated in his "Two Essays," page 94:

> "In 1832 there was a 'Samson' type named 'Stephenson' for the Boston and Lowell R. R. (8)."

The figure (8) being his method of indicating the builder's number.

PATRICK	**2-2-0**	**11x16 60″**	**1835**	**Locks and Canals #1**	**BUV**
LOWELL	**2-2-0**	**11x16 60″**	**1835**	**Locks and Canals #2**	**BUV**
BOSTON	**2-2-0**	**11x16 60″**	**1835**	**Locks and Canals #3**	**BUV**

Scrapped in 1840, 1863 and 1840.

MERRIMACK	**2-2-0**	**11x16 60″**	**1835**	**Locks and Canals**	**UV**
CONCORD	**2-2-0**	**11x16 60″**	**1835**	**Locks and Canals**	**UV**
NASHUA	**2-2-0**	**11x16 60″**	**1835**	**Locks and Canals**	**UV**

Scrapped in 1865, 1872 and 1865.

SUFFOLK	**2-2-0**	**11x16 60″**	**1839**	**Locks and Canals**

Scrapped in 1871.

MEDFORD	**2-2-0**	**11x16 60″**	**Locks and Canals**

See R&LHS Bulletins 4, 31 and 34.

BOSTON AND PORTLAND RAILROAD

Wilmington, Mass. Exeter, N. H. 30 miles

Original gauge 4′ 8½″

1833 Mar. 15 Incorporation of the Wilmington and Andover R. R.
1836 Aug. 8 Completed from Wilmington, a point on the Boston and Lowell, R. R., to Andover.
1838 Extended to Haverhill as the Andover and Haverhill R. R.
1839 Apr. 3 Renamed Boston and Portland Railroad.
1840 Jan. 1 Completed to Exeter.

Subsequently became the Boston and Maine R. R.

ANDOVER	2-2-0	1836	Locks and Canals	BUV
HAVERHILL	2-2-0	1836	Locks and Canals	BUV
ROCKINGHAM	2-2-0	1837	Locks and Canals	BUV

Sold in 1850 to the Marietta and Cincinnati R. R.

METEOR	2-2-0	1839	Locks and Canals	B
BERWICK	2-2-0	1839	Locks and Canals	B

BOSTON AND PROVIDENCE RAILROAD

Boston, Mass. Providence, R. I. 43.8 miles
Readville Dedham 2.

Original gauge 4′ 8½″
T rails 58#

1831 Jun. 22 Incorporated.
1833 Construction started.
1834 Jun. 4 Completed from Boston to Readville.
1834 Sep. 12 Completed from Boston to Canton.
1835 Feb. 5 Dedham branch completed.
1835 Jun. 4 Completed from Boston to Providence, except the Canton viaduct.
1835 Jul. 28 Canton viaduct completed.

WHISTLER re MASSACHUSETTS	2-2-0	11x16 60″	1831	Stephenson #17	BKUV

One of the two locomotives imported by the Proprietors of Locks and Canals for the Boston and Lowell Railroad. Bought by the Boston and Providence Railroad in 1833 and renamed soon after. In 1853 it was reported (ARRJ) stored in the engine house at India Point, Providence, and still capable of doing work.

BOSTON	2-2-0	12x18 60″	1833	Bury #18	BKUV

Rebuilt 4-2-2. Sold to the Boston, Hartford and Erie Railroad as no. 7. Scrapped in 1866.

NEW YORK	2-2-0	11x18 66″	1835	Forrester	BKUV
LOWELL	2-2-0	11x16 60″	1835	Locks & Canals	BKUV
PROVIDENCE	2-2-0	11x16 60″	1835	Locks & Canals	BKUV
BLACK HAWK			1835	Long and Norris	

First tried on the Boston and Worcester Railroad, as the COL. LONG but it was not successful and was refused. It was tested on the Boston and Providence Railroad for a short time but, before the end

of 1835 it was lost in the quicksands at Sprague Point, Readville. This possibly was a new locomotive in 1835 but it is more likely that it was the BLACK HAWK of 1833 rebuilt.

LINCOLN	2-2-0(?)	1835	Long and Norris
CANTON	2-2-0(?)	1835	Long and Norris
DEDHAM	2-2-0(?)	1835	Long and Norris

While it is possible that these locomotives were built new in 1835, it is much more likely that they were older engines rebuilt—probably the LOCOMOTOR of 1831 and the GREEN HAWK and the nameless one of 1833. They were used for construction service on the Boston and Providence Railroad and seemed to perform reasonably well but, being coal-burners, they were not properly understood, and they were laid aside. They were not noted in the U. S. Report of 1838 nor by von Gerstner in 1839. Later they were rebuilt by Souther and were more successful. The LINCOLN was sold to the Boston, Hartford and Erie Railroad; the CANTON to the Norfolk County Railroad in 1848. The DEDHAM was kept and scrapped about 1850.

PHILADELPHIA	4-2-0		1835	Norris	BUV
BALDWIN No. 1	4-2-0	11x16 54″	1836	Baldwin #30	BKUV
BALDWIN No. 2	4-2-0	11x16 54″	1836	Baldwin #34	BKUV
BALDWIN No. 3	4-2-0	11x16 54″	1836	Baldwin #39	BKUV
YOUNG No. 1	4-2-0	11x16 60″	1836	Young, Newcastle	KUV
YOUNG No. 2	4-2-0	11x16 60″	1836	Young, Newcastle	KUV
TIOT re NEPONSET (?)	2-2-0	11x16 60″	1837	Locks & Canals	K
KING PHILIP re ATTLEBOROUGH	2-2-0	11x16 60″	1839	Locks & Canals	

R&LHS Bulletins 13 and 47.

BOSTON & WORCESTER RAILROAD

Boston, Mass. Worcester 44.5 miles

Original gauge 4′ 8½″
T rails 40#

1831	June 23	Incorporated
1832	July	Construction started
1834	Apr. 2	Beginning of revenue service
1834	Apr. 16	Completed from Boston to Newton
1834	July 3	Completed to Needham (now Wellesley)
1835	July 4	Completed to Worcester

METEOR	2-2-0	10x14″ 48″	1832	Stephenson #26	BUV

First run (revenue service) Apr. 2, 1834. Sold in 1835 to Bangor & Piscataquis R. R. & Canal Co. "Pioneer."

BOSTON	2-2-0	12x16″ 60″	1832	Stephenson #27	B

Disappeared before the road was opened. Because of its dimensions it was less useful than the METEOR for construction service and not being needed otherwise it was turned in as part payment for the YANKEE where it was subsequently rebuilt and sold in 1834 to the Allegheny Portage R. R.

YANKEE 2-2-0 1834 R. M. Bouton, Mill Dam Foundry KUV

Scrapped 1847.

COL. LONG 2-2-0 1834 Long & Norris

Tried on May 7, 1835 but without success; then sent to the Boston & Providence R. R. as the BLACK HAWK, possibly its original name. It was lost, before the end of the year, in the quicksands at Sprague's Pond, Readville.

METEOR 0-4-0 11x16" 54" 1834 Stephenson #107 BKUV

Disappears by 1839.

MERCURY 0-4-0 10x16" 54" 1834 Stephenson #120 BKUV

First run July 20, 1835. Scrapped 1845.

JUPITER 0-4-0 10x16" 54" 1834 Stephenson #121 BKUV

First run August 5, 1835. Scrapped 1845.

COMET 0-4-0 10x16" 54" 1834 Stephenson #143 BKUV

First run Jan. 21, 1835. Sold in 1845 to the Old Colony R. R. Scrapped in 1852.

ROCKET 0-4-0 10x16 54" 1834 Stephenson #144 BUVK

First run May 26th, 1835. Rebuilt 4-4-0 by Hinkley in 1847. Sold in August 1852 to the Chicago and Aurora R. R., formerly the Aurora Branch R. R., and was used to build the Aurora-Mendota extension. It was destroyed in the Mendota engine house by a tornado in 1854. (ARRJ).

LION 2-2-0 11x16 60" 1835 Bury #32 BUVK
re BROOKLINE
re Z. E. COFFIN

First run Jan. 24th, 1836. Rebuilt 4-2-0 and renamed BROOKLINE. Rebuilt 4-2-2 by Hinkley and renamed Z. E. COFFIN. Sold in 1856 to the Portland and Kennebec R. R., as no. 18, the FARMINGDALE. Scrapped 1870.

LOWELL 2-2-0 11x16 1836 Locks and Canals BUVK

First run June 11th, 1836.

WILLIAM PENN 4-2-0 1836 Baldwin #25 BUVK

First run April 13th, 1836. Scrapped 1847.

ELEPHANT 4-2-0 1837 Baldwin #71 BUVK

First run April 22nd, 1837.

TARTAR 4-2-0 1839 Baldwin #135 B

METEOR 2-2-0 1839 Locks and Canals B

Sold in 1850 to the Marietta and Cincinnati R. R. as the THOMAS JAMES.

MARS	4-2-0	1840	Norris #108	B

Scrapped 1864.

VULCAN	4-2-0	1840	Norris	B

Sold in 1850 to the Rutland and Burlington R. R. Scrapped about 1856.

BUCK MOUNTAIN RAILROAD

Rockport, Pa. Buck Mountain 5 miles

1840 Nov. Railroad completed from Rockport, on the Lehigh River, to the coal mines at Buck Mountain.

1862 abandoned.

ANTHRACITE (?)	0-4-0 (?)	1837	Garrett & Eastwick (?)	

"In 1840, a small locomotive was taken by team from Tamaqua, through the Quakake Valley to Rockport and there delivered to the Buck Mountain Railroad. The engine had been built in Philadelphia." (From "History of Carbon County," Fred. Brenckman, 1913).

Although details are lacking, it is evident that this locomotive was bought from the Little Schuylkill Navigation, Railroad and Coal Company and presumably it was a small 0-4-0 type somewhat similar to the CATAWISSA. There is also a reasonable presumption that it was the same engine as the ANTHRACITE, reported by Knight and Latrobe as being tested on the Philadelphia and Columbia Railroad in 1837.

BUFFALO AND NIAGARA FALLS RAILROAD

Buffalo, N. Y. Niagara Falls, N. Y. 25 miles

Original gauge 4′ 9″ (?)
Strap iron rails

1834 May 3 Incorporated.
1836 Completed.

BUFFALO	2-2-0	11x16 60″	1835	Locks and Canals	UV
NIAGARA	4-2-0		1836	Dunham	UV
TONAWANDA	4-2-0		1838	Baldwin #109	BUV

CAMDEN AND AMBOY RAILROAD

Camden, N. J. Perth Amboy 61 miles
Bordentown - Trenton - New Brunswick 31 miles

Original gauge 4′ 9¾″
T rails 38 and 48 lbs.

1830 Feb. 4 Incorporation.
1832 Dec. Completed from Bordentown to Hightstown.
1834 Sept. Completed from Camden to Amboy.
1839 Completed from Bordentown to New Brunswick.

1. JOHN BULL	0-4-0	9x20 54″	1831	Stephenson #25	BCUV
rebuilt	2-2-2-0	11½x20		C. & A. R. R.	

Listed in builder's records as "Mr. Stevens' Locomotive, New York, America." An original drawing of the boiler, dated May 18th, 1831, shows that it had a circular firebox with a domed top. In view of

Stephenson's objection to Bury's similar, but not identical, design, it is probable that this design was specified by the purchaser.

During its long life, the JOHN BULL underwent many changes. The Camden and Amboy was one of the best-built railroads in America at that time but, nevertheless, it seems to have been too rough for the short wheelbase of the 0-4-0 type, so the side rods were removed making the JOHN BULL a 2-2-0 type. Soon after, or perhaps at the same time, a very peculiar cow-catcher, with supporting wheels, was added. In this rebuilt form, the JOHN BULL performed so well that the company built thirteen similar locomotives between 1833 and 1837. The first run of the JOHN BULL was on Nov. 12th, 1831. The larger cylinders and the tall, slim steam dome, behind the smokestack, probably were added later. The JOHN BULL ran for many years, finally running, under its own steam, to Chicago in 1893. Since then it has been preserved in the Smithsonian Institution.

2.		2-2-2-0	9x20	54″	1833	C. & A. R. R. CUV

Built under the supervision of Robert L. Stevens at Hoboken. It is not certain whether this, and the similar engines which followed, were built 2-2-2-0 type or were 0-4-0 type originally and subsequently rebuilt as was the JOHN BULL.

3.		2-2-2-0	11½x20	54″	1833	C. & A. R. R. CUV

Probably had 9x20 cylinders when built and may have been 0-4-0 type originally.

4.		2-2-2-0	9x20	54″	1833	C. & A. R. R. CUV
5.		2-2-2-0	11½x20	54″	1833	C. & A. R. R. CUV
6.		2-2-2-0	13x20	54″	1833	C. & A. R. R. CUV
7.		2-2-2-0	11½x20	54″	1833	C. & A. R. R. CUV
8.		2-2-2-0	11x20	54″	1835	C. & A. R. R. CUV
9.		2-2-2-0	13x20	54″	1835	C. & A. R. R. CUV
10.		4-4-0	13x20	54″	1835	C. & A. R. R. CUV
11.		2-2-2-0	11½x20	54″	1835	C. & A. R. R. CUV
12.		2-2-2-0	13x20	54″	1836	C. & A. R. R. CUV
13.		2-2-2-0	11½x20	54″	1836	C. & A. R. R. CUV
14.		2-2-2-0	11½x20	54″	1837	C. & A. R. R. CUV
15.		2-2-2-0	13x20	54″	1837	Dunham & Browning CUV
16.		2-2-2-0	13x20	54″	1837	Dunham & Browning CUV
17.	MONSTER	0-8-0	18x27	54″	1840	C. & A. R. R. C

The dimensions given were as in 1850, which indicates that all were still in service—evidence of good maintenance. Since the 4-2-0 type did not appear on the road, during the period under review, it is probable that nos. 1 to 16 were originally 0-4-0, 9x20, 54″, and subsequently rebuilt in several ways.

Nos. 2 to 14 were built at Hoboken and no. 17 in the new shops at Bordentown.

CAMDEN AND WOODBURY RAILROAD

Camden, N. J. Woodbury 8 miles

Original gauge 4′ 9″
Strap iron rails

1836 Mar. 11 Chartered.
1839 Completed.

FIRE FLY	4-2-0	9x14 54″	1833	Tayleur #4	BUV
RED ROVER	4-2-0	9x14 54″	1833	Tayleur #5	BUV

These two locomotives were built originally for the Philadelphia and Columbia Railroad but were soon replaced by the similar but larger engines built by Norris and Baldwin. They were retired about 1836 and sold to the Camden and Woodbury Railroad about 1838.

The U. S. Treasury Report of 1838 has the name REDCLOVER instead of RED ROVER.

There is a drawing of the FIRE FLY in E. L. Ahrons' the British Steam Locomotive, 1825-1925, page 26, fig. 20.

The Camden and Woodbury Railroad was abandoned in 1845 and one of these locomotives seems to have been sold to the Portsmouth and Roanoke Railroad in Virginia.

CATSKILL AND CANAJOHARIE RAILROAD

Catskill, N. Y. Cooksburg 26 miles

Original gauge 4′ 8½″ (?)

1830 Apr. 19 Incorporated
1837 Completed from Catskill to Cairo
1838 Completed to Oak Hall
1839 Completed to Cooksburg
1842 Abandoned

?	4-4-0	10¼x16 56″	1838	Dunham

CENTRAL RAILROAD AND BANKING COMPANY OF GEORGIA

Savannah, Ga. Macon, Ga. 163 miles

Original gauge 5′ 0″
Strap iron rails ¾″x2¼″

1833 Dec. 20 Incorporation of the Central Railroad and Canal Company of Georgia.
1835 Dec. 15 Reincorporation as the Central Railroad and Banking Company of Georgia.

MACON	4-2-0	1838	Baldwin #103	BU
TENNESSEE	4-2-0	1838	Baldwin #144	BU
GEORGIA	4-2-0	1838	Baldwin #145	BU
SAVANNAH	4-2-0	1839	Baldwin #124	B
JOHN BOLTON	4-2-0	1839	Rogers #18	B
ATLANTIC	4-2-0	1839	Baldwin #128	B
OGLETHORPE	4-2-0	1840	Rogers #21	B
OCONEE	4-2-0	1840	Rogers #24	B

CHAMPLAIN AND ST. LAWRENCE RAILROAD

St. Johns, Que. Laprairie 14.5 miles

Original gauge 4′ 8½″
Strap iron rails 2″x½″

1832 Feb. 25 Incorporated.
1836 Jul. 21 Completed. First public railway in Canada.
1863 Sep. 25 Acquired by the Grand Trunk Railway.

DORCHESTER 0-4-0 9x14 48″ 1836 Stephenson #127

Ca. 1839 rebuilt as 4-2-0 type.
1849 sold to the St. Lawrence and Industrie Village Railway.
1864 destroyed by a boiler explosion and derailment.

JASON C. PIERCE 4-2-0 9x18 48″ 1837 Norris

Ca. 1847 rebuilt 4-4-0 10¾x20 46½″.
1850 sold to the St. Lawrence and Industrie Village Railway where it was better known by its nickname 'Pacaud.'
Ca. 1886 sold to L'Assomption Railway and destroyed soon after in a fire.

	Dorchester	Jason C. Pierce
Class	Samson	C
Boiler, length	6′ 6″	12′
Boiler, diameter	2′ 3″	
Tubes, number	64	58
Tubes, length	6′ 6″	7′
Tubes, diameter	1⅝″	2″
Grate area	5.16 sq. ft.	
Heating surface	213.53 sq. ft.	917 sq. ft.
Weight, total	12,563 lbs.	15,705 lbs.
Weight, on drivers	12,563 lbs.	8,022 lbs.

CITY POINT RAILROAD

Petersburg, Va. City Point 9 miles

Original gauge 5′ 0″
Strap iron rails 2″x½″

1837 Incorporated
1838 Sept. 7 Completed

POWHATAN	4-2-0	9x16 48″	1838	Norris	BUV
POCAHONTAS	4-2-0	9x16 48″	1839	Norris	B

CLINTON AND PORT HUDSON RAILROAD

Port Hudson, La. Clinton, La. 28 miles

Original gauge 4′ 8½″ (?)
Strap iron rails 2½″x⅞″

1833 Feb. 7 Incorporated.
1839 Completed.

CLINTON	4-2-0	12½x16	1836	Baldwin #52	BV

Built for the New Orleans and Carrollton Railroad but apparently not delivered. Baldwin sold it in 1838 to the Clinton and Port Hudson R. R.

PORT HUDSON	4-2-0		1838	Baldwin #169	BV

Returned to Baldwin about 1840 or 1841 and re-sold in 1842 to the Elizabethtown and Somerville R. R. as the 'Gen. Wall.'

?	4-2-0		1839	Norris	BV
JACKSON	4-2-0		1839	Baldwin #135	B

The old boiler mentioned in R&LHS Bulletin no. 18, page 58, probably was the remains of one of these old engines.

CUMBERLAND VALLEY RAILROAD

Harrisburg, Pa. Chambersburg, Pa. 46 miles

Original gauge 4' 9"
Strap iron rails 2¼"x⅝"

1831 Apr. 2 Incorporated
1837 Nov. 6 Completed
1838 First railroad to operate sleeping cars.
Acquired by the Pennsylvania Railroad.

CUMBERLAND VALLEY	4-2-0	1837	Norris	BUV
CARLISLE	4-2-0	1837	Norris	BUV
CHAMBERSBURG	4-2-0	1837	Baldwin #97	BUV
SHIPPENSBURG	4-2-0	1838	Norris	BUV
NICHOLAS BIDDLE	4-2-0	1838	Norris	BUV
TIGER	4-2-0	1839	Norris	BV
LEOPARD	4-2-0	1839	Norris	BV
ENTERPRISE	4-2-0	1839	Norris	BV

It is probable that the Enterprise was ordered by the Franklin R. R. but could not be used on that road because of poor rails.

DANVILLE AND POTTSVILLE RAILROAD

Sunbury, Pa. Shamokin 29.5 miles
Girardville Wadesville 13.

Original gauge 4' 8½"
Strap iron rails 2¼"x⅝" and 2"x½"

1826 Incorporated to build from Sunbury, on the Susquehanna River, to the Schuylkill River, at or near Mt. Carbon.
1838 Nov. Western section completed from Sunbury to Shamokin.
1840 Eastern section completed from Girardville to a connection with the Mt. Carbon Railroad at Wadesville and running rights from Wadesville via Pottsville to Mt. Carbon. Grading was completed from Girardsville to Ashland but the part between Girardsville and Shamokin was never completed.
1844 Eastern section reported "rotting in the sun."

NORTH STAR	4-2-0	1838	Garrett & Eastwick	V
MOUNTAINEER	4-2-0	1839	Garrett & Eastwick	V

The locomotives were used only on the western section between Sunbury and Shamokin.

DELAWARE AND HUDSON CANAL COMPANY

Carbondale, Pa. Honesdale 16½ miles

Original gauge 4′ 3″
Strap iron rails

1823 Apr. 23 Chartered as a canal company.
1828 Oct. 16 Railway completed.

PRIDE OF NEWCASTLE	0-4-0	9x24	48″	1828	Stephenson #12 B

This locomotive is better known by the incorrect name AMERICA. It was similar to the LANCASHIRE WITCH and it was the first British locomotive to reach America. When it arrived in New York, it was set up on blocks and tested successfully but, although sent up to the railroad, it was never used. One of its cylinders is preserved in the Smithsonian Institution.

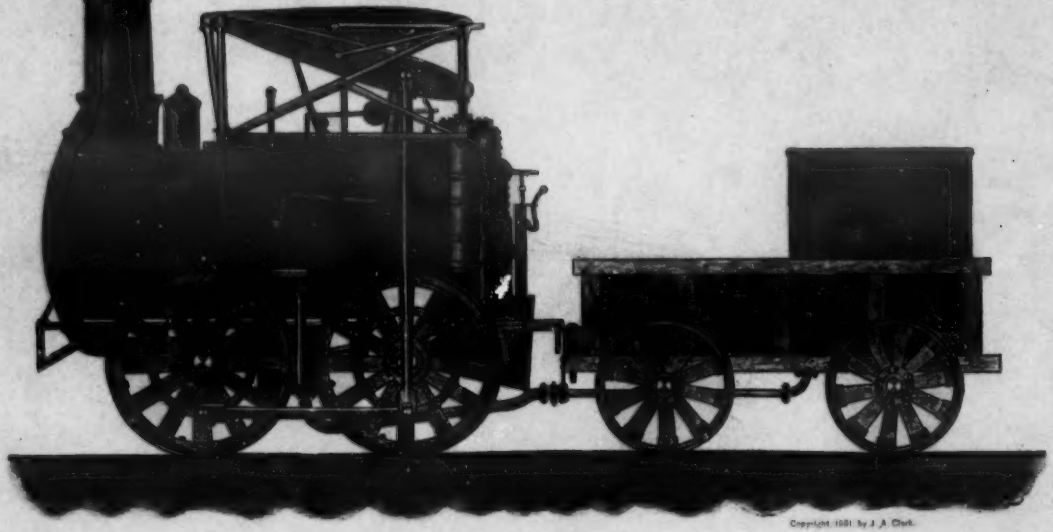
LION	0-4-0	8½x36	48″	1829	Foster, Rastrick

Better known as the STOURBRIDGE LION. This was the only one of the four locomotives actually used on the road; making several successful trial trips in August 1829. About 1835 it was sold to Lindsay and Early, of Carbondale, Pa., for use as a stationary engine in their machine shop. After about fifty years service it was broken up and the boiler, one cylinder and one walking beam were given to the Smithsonian Institution. The long and successful career of its sister engine, the AGENORIA, proves conclusively that, under more favorable conditions, the LION would have been equally satisfactory.

FOX	0-4-0	8½x36	48″	1829	Foster, Rastrick
RONDOUT	0-4-0	8½x36	48″	1829	Foster, Rastrick

These two are better known by the incorrect names DELAWARE and HUDSON. Apparently they were never even set up and tested.

The fate of these four locomotives is one of the great mysteries of American railroad history; they were well-built and capable of long and useful service but they were too heavy for the light track and trestles, which had been built of green hemlock, readily obtainable in the neighbourhood but a very inferior and unsatisfactory wood for the purpose and had already become badly warped and cracked. One wonders why the company did not strengthen and improve the track rather than write off as a loss its considerable investment in the locomotives. Probably the truth of the matter was that, of all the officials of the company, the only real locomotive enthusiast was Horatio Allen and he left the



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THE LOCOMOTIVE "LION."

The first locomotive engine ever placed upon a track on the Western Hemisphere. Trial trip made at Honesdale, Penna., August 8th, 1829. Brought to America by the Delaware & Hudson Canal Company from Stourbridge, England, where it was built. Oak timber spokes, iron ties, wooden fellows, iron wheel centres, hemlock timber for track, with strap-iron rail.

Courtesy of R. & L. H. S. Collection

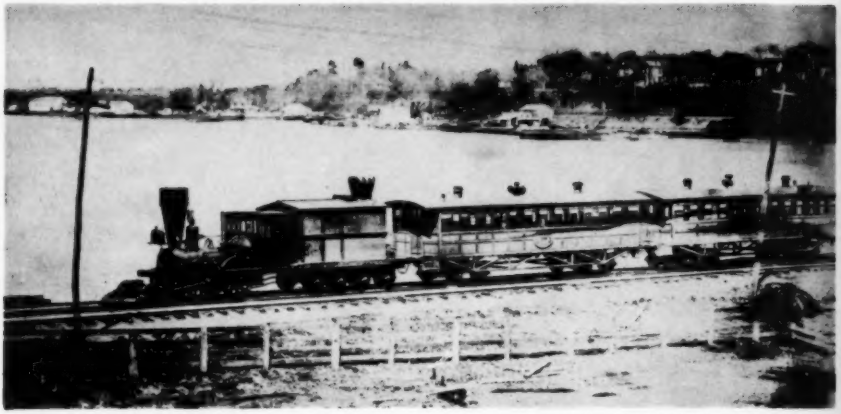
Delaware & Hudson Canal Co.. "Stourbridge Lion"—the first locomotive to be used in America.

Courtesy of B. & O. R. R.

The replica of the B. & O. "Atlantic" and train of imlay coaches.

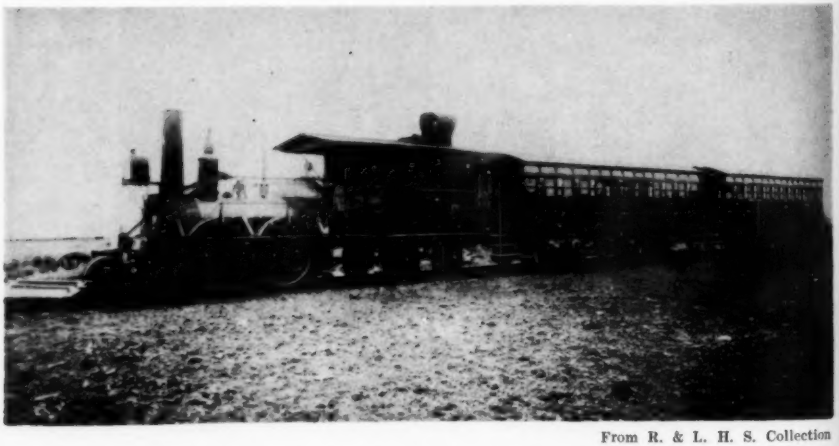
B. & O. R. R. replica of the "Arabian."

From R. & L. H. S. Collection



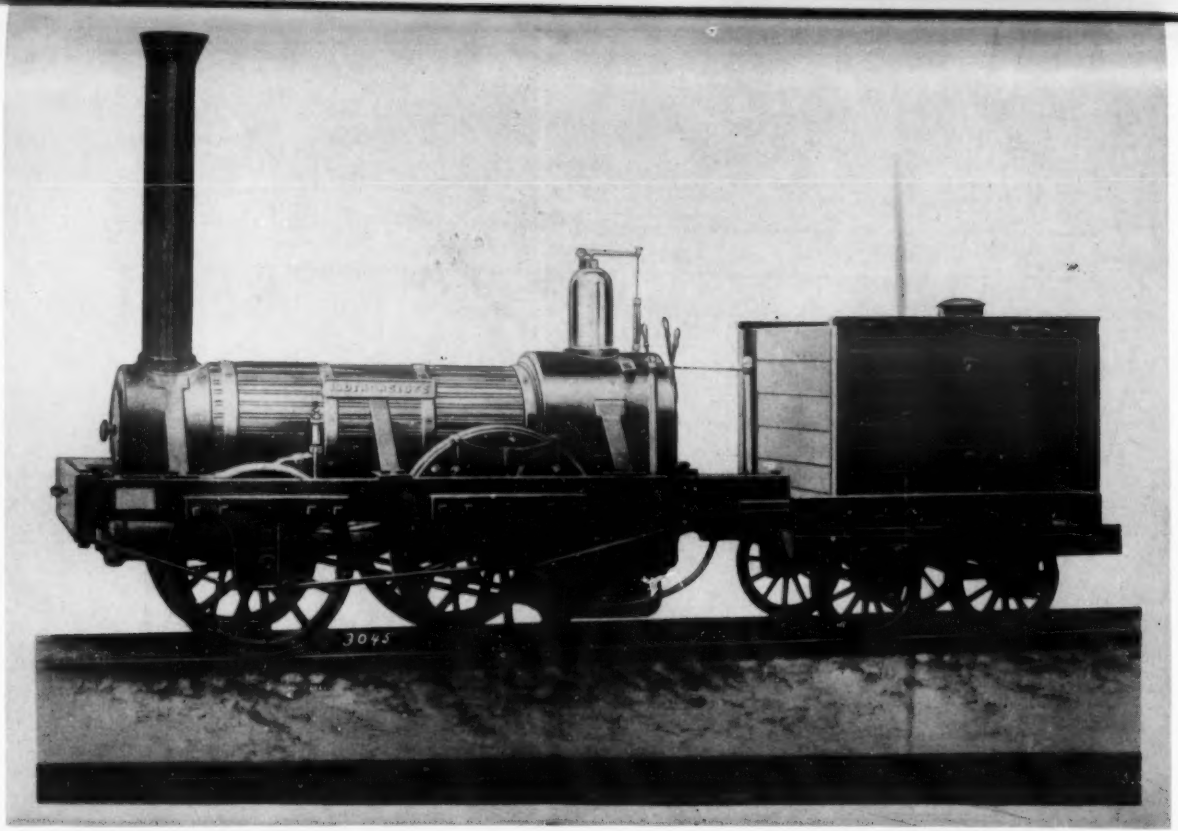
Courtesy R. & L. H. S. Collection

Camden & Amboy R. R. "John Bull" shortly after retired from service.



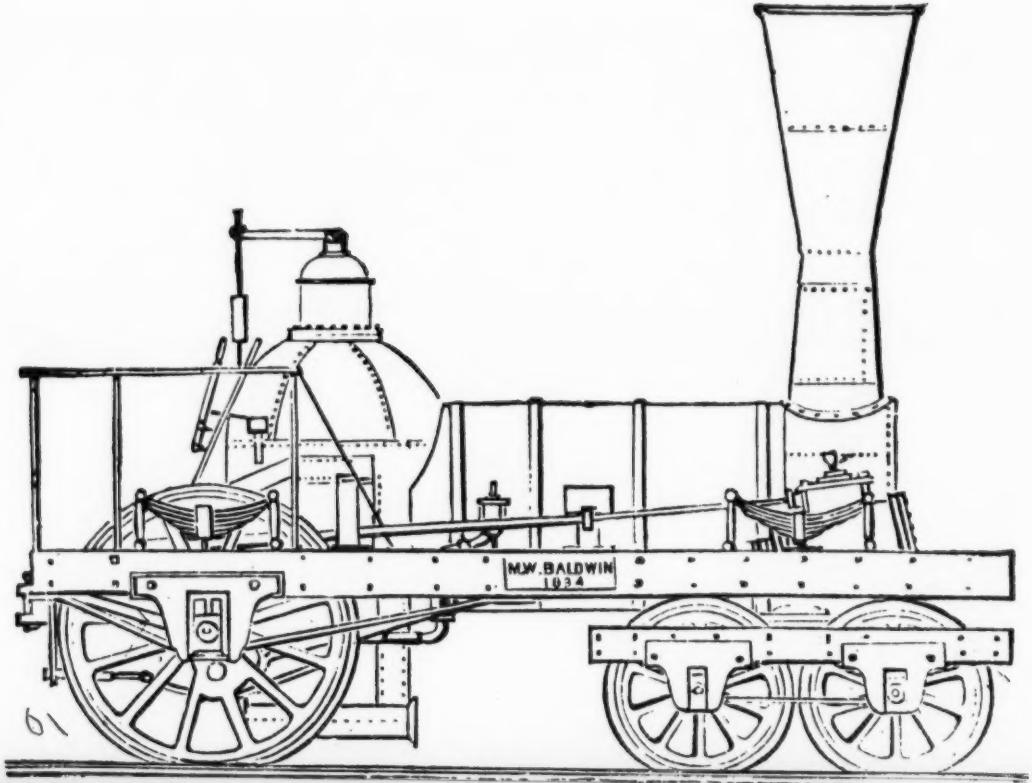
From R. & L. H. S. Collection

Camden & Amboy R. R. "John Bull" ard train as it appeared in 1893.



From R. & L. H. S. Collection

Philadelphia, Germantown & Norristown R. R. "Old Ironsides"—the first engine built by M. W. Baldwin.

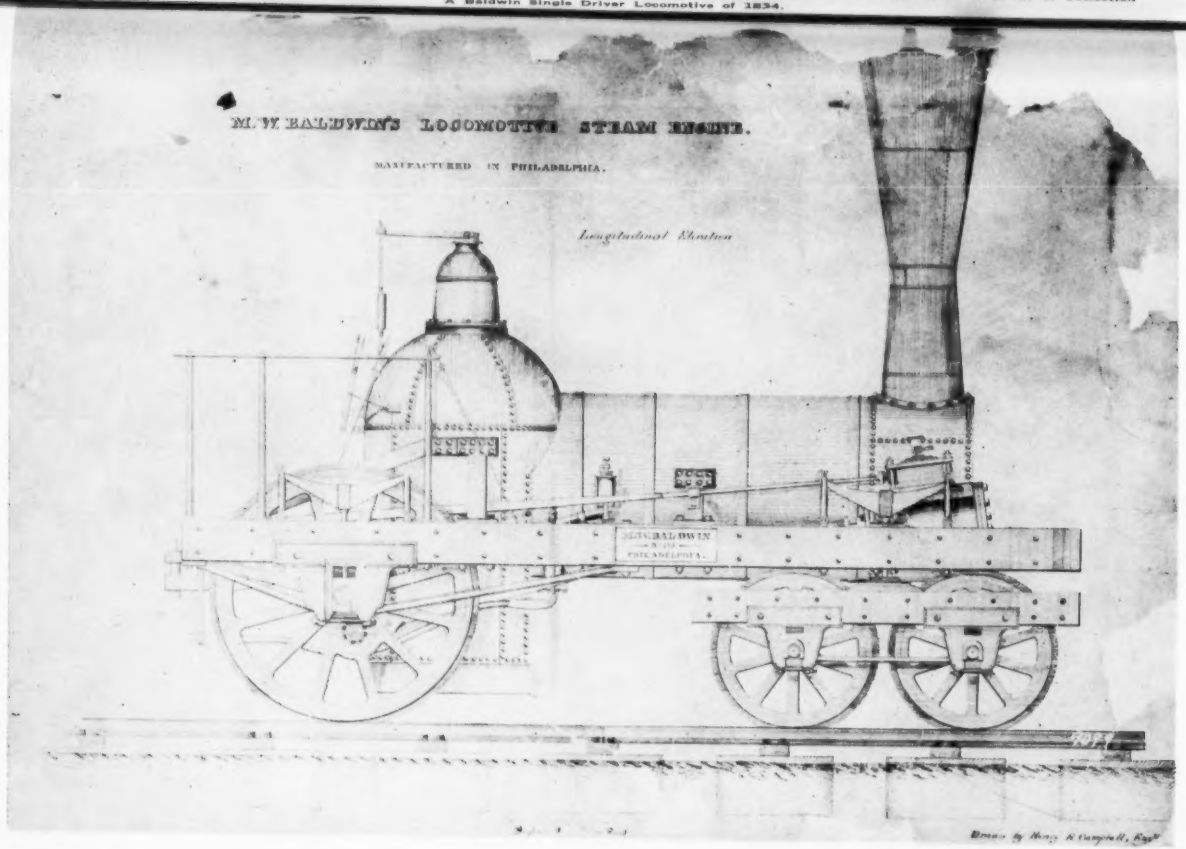


A Baldwin Single Driver Locomotive of 1834.

Courtesy of R. & L. H. S. Collection

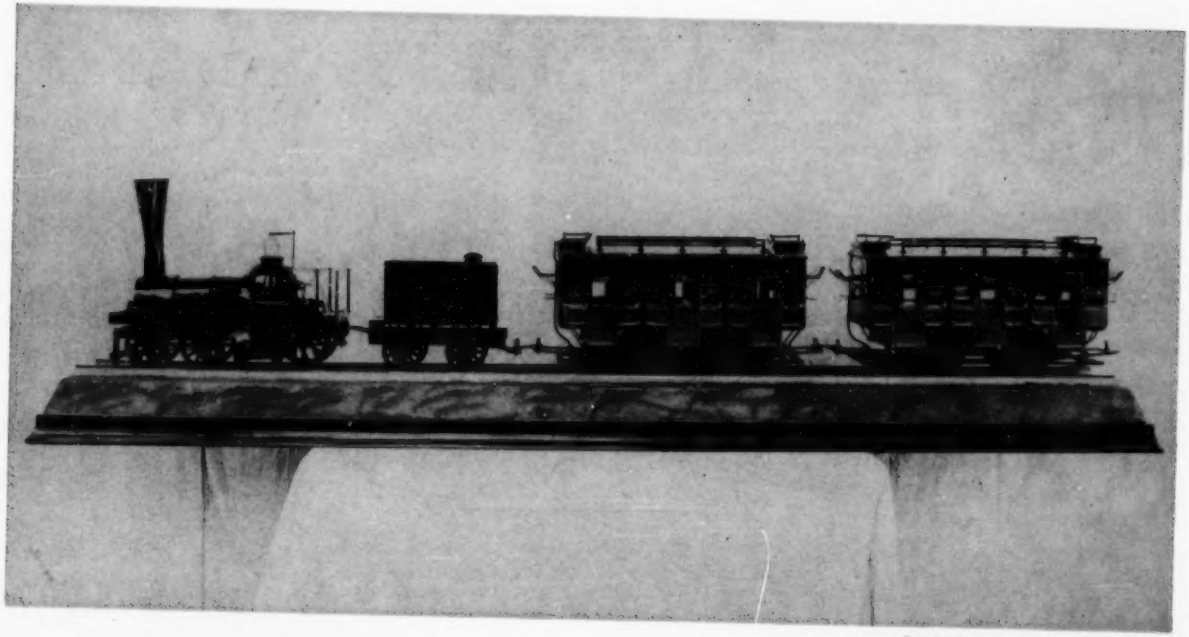
A Baldwin Single Driver Locomotive of 1834.

Courtesy of R. & L. H. S. Collection



Courtesy of Baldwin Locomotive Works

Baldwin Single Driver Locomotive. Built for Philadelphia & Columbia R. R. "Martin Van Buren," 1839.

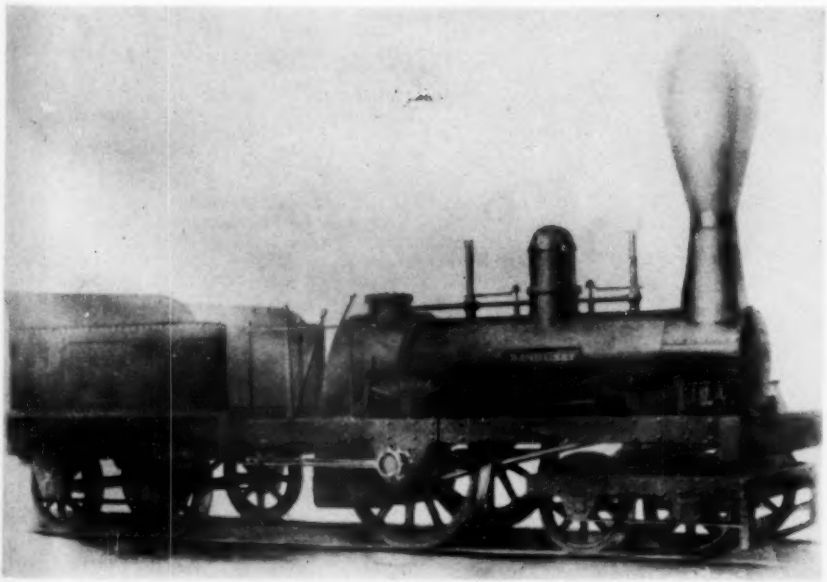


Courtesy of R. & L. H. S. Collection

Model of a Baldwin locomotive and train on the Philadelphia & Columbia R. R.
Locomotive bears the name "Lancaster."

Courtesy of C. E. Fisher

Champlain & St. Lawrence R. R. "Dorchester" from a painting made in 1936.



Courtesy of C. E. Fisher

Mad River & Lake Erie R. R. "Sandusky." Rogers K. & G. 1837.

service of the company soon after the trial runs of the LION, in August 1829, to take the position of chief engineer of the South Carolina Canal and Railroad Company.

After lying idle for about five years, an attempt was made to sell the locomotives to the Philadelphia and Columbia Railroad and an official of that road, accompanied by M. W. Baldwin, went up to Carbondale to inspect them but when he found that they had been built for a different gauge and were of antiquated design even for 1834, the offer was declined.

In 1835 they were scrapped or sold for use as stationary engines and, for many years, the managers of the Delaware and Hudson Canal Company seemed determined to forget they had ever owned the engines. Like some of the old-time doctors, they preferred to bury their mistakes.

DETROIT AND PONTIAC RAILROAD

Detroit, Mich. Birmingham 18 miles

Original gauge 4′ 8½″
Strap iron rails 2¼″x⅝″

1834 Mar. 7 Incorporation
1838 Jul. 21 Completed from Detroit to Royal Oak
1839 Aug. 16 Completed to Birmingham
1843 Jul. 4 Completed to Pontiac

Eventually became part of the Grand Trunk Western Ry.

DETROIT	4-2-0	1838	Baldwin #112	BV

On arrival, the name of this engine was changed to Sherman Stevens and still later, probably in 1843, was again changed to Pontiac.

EASTERN RAILROAD

East Boston, Mass. Portsmouth, N. H. 54.3 miles
Salem Marblehead 3.52

Original gauge 4′ 8½″
Iron T rails 45#

1836 Apr. 14 Incorporated.
1838 Aug. 27 Completed to Salem.
1839 Apr. 6 Marblehead branch authorized.
1839 Dec. 10 Completed from Salem to Marblehead.
1840 Jun. 17 Completed to Newburyport.
1840 Nov. 9 Completed to Portsmouth.

SUFFOLK	2-2-0	11x16	60″	1838	Locks & Canals	UV
ESSEX	2-2-0	11x16	60″	1838	Locks & Canals	UV
MERRIMACK	2-2-0	11x16	60″	1838	Locks & Canals	UV
ROCKINGHAM	2-2-0	11x16	60″	1838	Locks & Canals	UV
PISCATAQUA	2-2-0	11x16	60″	1839	Locks & Canals	V
NAUMKEAG	2-2-0	11x16	60″	1839	Locks & Canals	V
GEN. FOSTER	2-2-0	11x16	60″	1840	Locks & Canals	V
SAGAMORE	4-2-0	10½x18	52″	1840	Norris	V

Von Gerstner stated erroneously that four were built by Locks and Canals and four by Bury.

See R&LHS Bulletin no. 28.

ELIZABETHTOWN AND SOMERVILLE RAILROAD

Elizabethport, N. J. Somerville 26 miles

Original gauge 4' 8½"
Strap iron rails 2½"x⅝"

1831 Feb. 9 Incorporation.
1836 Aug. 13 Completed from the Elizabethport ferry dock to Elizabeth, Broad Street, and operated by horses.
1838 Construction started across the plain south of the Watchung Mountains.
1839 Jan. 1 First train from Elizabethport to Plainfield, hauled by the locomotive EAGLE.
1840 Completed from Elizabethport to Yellow Tavern (Bound Brook).

EAGLE	4-2-0	1838	Baldwin #117	BV
COMMODORE	4-2-0	1838	Norris	V
PHILADELPHIA	4-2-0	1839	Baldwin #165	B

Because of financial difficulties, the railroad was unable to pay for this locomotive and it was sold, by the builder, to the Philadelphia and Trenton Railroad.

GENERAL WALL	4-2-0	1839	Baldwin #169

Originally, this locomotive was the PORT HUDSON of the Clinton and Port Hudson Railroad, in Louisiana, and it was returned to the builder in 1840 or 1841, possibly because the road could not pay for it. It was reconditioned and then sold to the Elizabethtown and Somerville Railroad in 1842.

ERIE AND KALAMAZOO RAILROAD

Toledo, Ohio Adrian, Mich. 33 miles

Original gauge 4' 10"
Strap iron rails 2¼"x⅝"

1833 Apr. 22 Incorporated.
1836 Oct. 3 Completed.

ADRIAN	4-2-0	1837	Baldwin #80	BUV
TOLEDO	4-2-0	1837	Baldwin #90	BUV

GENERAL MINING ASSOCIATION

Albion Mines, Nova Scotia South Pictou 6.076 miles

Original gauge 4' 8½"
Rails Iron bullhead, non-reversible

1826 General Mining Association organized in England by Messrs. Rundell, Bridge and Rundell.

1827	June 4	Mining operations commenced in Nova Scotia.
1829		A horse-operated tramway built from the Albion Mines to the East River of Pictou. The cast iron fishbelly rails were made at Albion Mines and probably were the first iron rails made in America. The East River was and is very shallow in late summer and the original loading pier, near the present C. N. R. bridge, was very unsatisfactory so, about 1830 or soon after, the tramway was extended to a new pier about opposite the New Glasgow railway station. This, too, proved to be unsatisfactory and the tramway was extended again to a new pier about a hundred yards below the George Street bridge in New Glasgow.
1836	May	Construction of the railway started.
1838	Oct.	Railway completed from Albion Mines to the old loading pier at New Glasgow.
1838	Dec.	Locomotive SAMSON tested.
1839	Sep. 19	Official opening of the railway from Albion Mines to the new loading pier at South Pictou.

The railway was a department of the mining company and had no separate existence. The names commonly used—Albion Mines Railway or South Pictou Railroad—were unofficial.

The lower terminus was variously known as South Pictou, The Loading Ground, Abercrombie or Dunbar Point.

SAMSON	0-6-0	15¼x18	48″	1838	Timothy	Hackworth
HERCULES	0-6-0	15¼x18	48″	1838	Timothy	Hackworth
JOHN BUDDLE	0-6-0	15¼x18	48″	1838	Timothy	Hackworth

There is a great deal of confusion about the cylinder dimensions of these engines and authorities differ. Some state that the stroke was 18″ and others claim it was 16″. Recently, a group of members of the Canadian Railroad Historical Association inspected the SAMSON, measured the radius of the throw of the cranks which is 9″ and proving that 18″ is the correct length of stroke.

Various cylinder diameters have been given—¼″, ½″, ⅝″, 2/3″ and ¾″. It was not possible to remove the cylinder cover to check this but it is reasonable to suppose that the original diameter was 15¼″. During a long life of 44 years it is probable that the cylinders were re-bored three or four times and, if a bite of approximately ⅛″ was taken off each time, each of the different dimensions could be correct. Old engineers who remembered the engines asserted that at the end the dimensions were 15¾x18.

The JOHN BUDDLE was retired about 1875 and the boiler used for a stationary engine. It was still so used in 1894 but its final disposition is not known.

The HERCULES was retired in October 1882 and stored until 1892 when it was broken up.

The SAMSON was retired in October 1882, when the South Pictou loading pier was abandoned, and stored with the HERCULES. However, in the summer of 1883, together with its tender and an old passenger coach, the SAMSON went to Chicago to the Exposition of Railway

Appliances where it was widely but incorrectly publicized as the first locomotive in Canada. It was accompanied by George Davidson, its original engineer, and he was a special guest of the local Brotherhoods of Locomotive Engineers.

The SAMSON returned to Albion Mines and was stored with the HERCULES. Ten years later, when Major Pangborn was gathering material for the Chicago World's Fair, the SAMSON was borrowed again; by the Fair Commission and not by the Baltimore and Ohio Railroad as is usually supposed. The engine was to have been returned to Albion Mines when the Fair ended but meanwhile there had been a change of management at the mines and the new officials of the company were not interested in getting the SAMSON back so, in 1894, it was discarded in Chicago. Fortunately it was rescued by the B. & O. and stored for many years with the other relics owned by that company. It was exhibited at Halethorpe in 1927 and in the following year the B. & O. presented it to the province of Nova Scotia, together with its younger mate, the ALBION.

At first they were exhibited on a short section of track in Cornwallis Square, opposite the railway station, but it was soon realized that the extremely damp Halifax climate would cause the engines to rust away. The ALBION was then stored under the grandstand at the Exhibition Grounds and the SAMSON was put in the trainshed of the railway station where it remained for 20 years, completely neglected. In 1949 Halifax celebrated the 200th anniversary of its founding and the two old locomotives were again put on display for a short period after which they suffered the greatest humiliation of being stored in the garage of the provincial roads department! About 1950, the SAMSON was given to the town of New Glasgow which did a creditable job by putting up a small building, near the railway station, to contain the SAMSON and a new replica of the old passenger coach.

GEORGIA RAILROAD AND BANKING COMPANY

Atlanta, Ga.	Augusta	157.5 miles
Original gauge	5′ 0″	
Strap iron rails	2.4″x0.8″	
T rails	46#	

1833 Dec. 21 Incorporated
1837 Nov. 1 Completed

In connection with the South Carolina Canal and Railroad Company, formed a continuous line from Atlanta, Ga., to Charleston, S. C.; the longest railroad in the world at the time.

GEORGIA	4-2-0	1836	Baldwin	#53	BV
PENNSYLVANIA	4-2-0	1836	Baldwin	#60	BV
TENNESSEE	4-2-0	1837	Baldwin	#61	BV
FLORIDA	4-2-0	1837	Baldwin	#96	BV
LOUISIANA	4-2-0	1837	Baldwin	#98	BV
KENTUCKY	4-2-0	12x16 44″	1837	Baldwin	#99	BV
MISSISSIPPI	4-2-0	12x16 44″	1838	Baldwin	#102	BV
J. E. THOMSON	4-2-0	12x16 44″	1838	Baldwin	#111	B

W. G. DEARING	4-2-0	12x16 44"	1838	Baldwin #114	BV
VIRGINIA	4-2-0	12x16 44"	1838	Baldwin #115	BV
ALABAMA	4-2-0		1838	Baldwin #118	BV
WM. CUMMINGS	4-2-0		1839	Baldwin, V. & H. #133	BV
JAMES CAMAK	4-2-0		1839	Baldwin, V. & H. #156	BV

HARRISBURG, PORTSMOUTH, MT. JOY AND LANCASTER RAILROAD

Lancaster, Pa. Harrisburg 36 miles

Original gauge 4' 8½"
Strap iron rails 2¼"x⅝"

1832 Jun. 9 Incorporated as the Portsmouth and Lancaster R. R.
1835 Incorporated as the Harrisburg, Portsmouth, Mt. Joy and Lancaster Railroad.
1838 Completed
1849 Acquired by the Pennsylvania R. R.

MIDDLETOWN	4-2-0		1836	Baldwin #57	BUV
MT. JOY	4-2-0		1836	Baldwin #59	BUV
FLYING DUTCHMAN	4-2-0	10½x16 54"	1837	Baldwin #62	BUV
HARRISBURG	4-2-0	10½x16 54"	1837	Baldwin #64	BUV
CONEWAGO	4-2-0	10½x16 54"	1837	Baldwin #82	BUV
C. B. PENROSE	4-2-0	11½x16 54"	1837	Baldwin #84	BUV
HENRY CLAY	4-2-0		1838	Norris	BUV
D. R. PORTER	4-2-0		1839	Norris	BV

The Harrisburg and the C. B. Penrose were still running when the road was acquired by the Pennsylvania R. R. in 1849.

HARTFORD AND NEW HAVEN RAILROAD

Hartford, Conn. New Haven 36.25 miles

Original gauge 4' 8½"

1833 May 29 Incorporated.
1836 Jul. 1 Construction started.
1838 Dec. 3 Completed from New Haven to Meriden.
1839 Dec. Completed from New Haven to Hartford.

CHARTER OAK	4-2-0	1838	Rogers #6	BV
QUINIPIAC	4-2-0	1839	Rogers #9	BV
HARTFORD	4-2-0	1839	Rogers #15	B
NEW HAVEN	4-2-0	1840	Rogers #20	B

HAZLETON COAL COMPANY

Hazleton, Pa. Weatherly, Pa. 14 miles

Original gauge 4' 8½"
Strap iron rails 2¼"x⅝"

1836 Construction started.
1838 Completed from Hazleton to Weatherly, connecting there with the Beaver Meadow R. R.
1850 Hazleton to Penn Haven

Acquired by the Lehigh Valley R. R.

LEHIGH	1838	Garrett & Eastwick	V
HAZLETON	1836	Garrett & Eastwick	V
SCHUYLKILL	1839	Eastwick & Harrison	

Probably 4-2-0 type.

HOUSATONIC RAILROAD

Bridgeport, Conn. Brookfield Jct. 35 miles

Original gauge 4′ 8½″

1836	June 1	Incorporated as the Ousatonic Railroad to build from Bridgeport to Canaan.
1837	May 20	Construction started.
1840	Feb. 11	Completed from Bridgeport to Brookfield Jct.
1842		Completed to Canaan.

HOUSATONIC	4-2-0	1839	Baldwin #138		BV
PEQUONNOCK	4-2-0	1839	Baldwin #140		BV
BRIDGEPORT	4-2-0	1840	Rogers K & G #26		B

All scrapped in 1856.
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HUDSON AND BERKSHIRE RAILROAD

Hudson, N. Y. West Stockbridge, Mass. 20 mi.

Original gauge 4′ 8½″
Strap iron rails

1835		Incorporated
1838	Oct. 3	Completed

HUDSON	4-2-0	10½x18	1838	Norris	B
BERKSHIRE	4-2-0	10½x18	1838	Norris	B
PITTSFIELD	4-2-0	10½x18	1838	Norris	B
NEW YORK	4-2-0	10½x18	1838	Norris	B
CHATHAM	4-2-0	10½x18	1838	Norris	B

IOLA AND ST. JOSEPH CANAL AND RAILROAD COMPANY

St. Joseph, Fla. Iola 30 miles

Original gauge 4′ 8½″ (?)
Strap iron rails 2¼″x½″

1839	Company organized.
1841	Railway abandoned and iron sold to a railroad in Georgia.

Von Gerstner reported one locomotive on this road but it cannot be identified. Probably it was one of the engines built for the defunct Lake Wimico and St. Joseph Canal and Railroad Co.

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ITHACA AND OWEGO RAILROAD

Ithaca, N. Y. Owego 34 miles

Original gauge 4' 8½" (?)

1828 Jan. 28 Incorporated.
1834 Apr. 1 Completed.
1843 Apr. 18 Renamed Cayuga and Susquehanna Railroad.
Eventually became part of the Delaware, Lackawanna and Western R. R.

PIONEER 4-2-0 9x16 48" 1840 DeWitt Bros.

This locomotive, also known as Old Puff, was designed by Walter McQueen. In 1851 it was sold to the Liggitt's (or Leggett's) Gap R. R.

LA GRANGE AND MEMPHIS RAILROAD

Memphis, Tenn. La Grange 40 miles

1835 Dec. 14 Incorporated.
1837 Grading completed and 6 miles of track laid from Memphis to Buntyn. The railroad was never operated regularly until 1848 when it was acquired by the Memphis and Charleston Railroad.

(?) 4-2-0 1840 Norris B

LAKE WIMICO AND ST. JOSEPH CANAL AND RAILROAD CO.

Port St. Joseph, Fla. Bayou Columbia 9 miles

Original gauge 4' 8½" (?)
Strap iron rails 2¼"x½"

1834 Incorporated.
1835 Company organized.
1836 Sept. 5 Completed.
1839 Road abandoned. Probably rails and some rolling stock went to the Iola and St. Joseph Canal and Railroad Co.

PHILADELPHIA re WIMICO	4-2-0	1836	Baldwin #41	BUV
ST. JOSEPH	4-2-0	1836	Baldwin #42	BUV
?? a	4-2-0	1838	Baldwin #137	BUV
?? b	?	1838	?	

Von Gerstner saw two but said there were four. Possibly the third and fourth were never delivered.

LEXINGTON AND OHIO RAILROAD

Lexington, Ky. Frankfort 28 mi.

Original gauge 4' 9" (?)
Strap iron rails 2¼"x⅝"

1830 Jan. 27 Incorporation.
1831 Oct. 22 Construction started.
1832 Aug. 15 Part of line opened with horses.
1834 Jan. 30 Completed from Lexington to Portland.

JOE. DAVIS	2-2-0 (?)		1833	Barlow and Bruen	

Designed by Thomas Harris Barlow. Trial trip on Mar. 2, 1833 and engine used for 17 days only.

NOTTAWAY	2-2-0	10x16 60″	1836	Stephenson #129	BUV
ELKHORN	2-2-0	10x16 60″	1836	Stephenson #139	BUV

The two Stephenson locomotives were ordered for this road by the Philadelphia and Columbia R. R., which acted as agent, and they were delivered via Philadelphia and the Allegheny Portage R. R. In the builder's records they are noted under the temporary names Firefly and Red Rover and they should not be confused with the Tayleur locomotives with the same names.

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LITTLE SCHUYLKILL NAVIGATION, RAILROAD AND COAL COMPANY

Port Clinton, Pa. Tamaqua 28.2 miles

Original gauge 4′ 8½″
Strap iron rails 2″x0.4″

1826	Feb. 28	Incorporated.
1832		Completed from Port Clinton to Tamaqua.
1833	Apr. 9	Opened for regular service.
1838		Construction started on an extension from Tamaqua to Tamanend, to connect there with the Little Schuylkill and Susquehanna Railroad but apparently it was never completed.
1839		Because of the extremely light rails, the use of locomotives temporarily discontinued.
1840		Tamaqua to Tamanend dismantled and the rails sold to the Mount Carbon Railroad.

COMET	0-4-0	11x16 54″	1833	Bury #6	BV

Destroyed at an early date.

CATAWISSA	0-4-0	11x16 54″	1833	Bury #10	BV

Acquired by the Philadelphia and Reading R. R. in 1863 and sold, in 1871, to the American Dredging Company.

TAMAQUA	4-2-0		1836	Baldwin #46	BV
TUSCARORA	4-2-0		1836	Baldwin #47	BV

According to von Gerstner, this road had five locomotives, three of them from England, but this is doubtful. No trace of the missing fifth engine has been found although it is possible that it was the Anthracite, a small 0-4-0 type, built in 1837 by Garrett and Eastwick and seen by Knight and Latrobe in 1837 while being tested on the Philadelphia and Columbia R. R.

The Jones Scrap Books, vol. 5, p. 35, at the Historical Society of Berks County, Reading, Pa., mentions 'four engines rusting at Tamaqua in 1840.'

In 1840 a small locomotive was taken by team from Tamaqua, through the Quakake Valley to Rockport and there delivered to the Buck Mountain Railroad. The engine had been built in Philadelphia. (History of Carbon County, Fred. Brenckman, 1913).

Thus there is a reasonable presumption that the missing fifth locomotive was the Anthracite; it was delivered to the road during the winter of 1837-38 and was sold to the Buck Mountain R. R. in 1840. It presumably was a small 0-4-0 type, similar to the Catawissa, and that led von Gerstner to suppose that it had been built in England.

LOCKPORT AND NIAGARA FALLS RAILROAD

Niagara Falls, N. Y. Lockport 20.9 miles

Original gauge 4′ 9″ (?)
Strap iron rails

1834 Apr. 24 Incorporated
1838 Completed

CLINTON	4-2-0	1838	Rogers K & G #3	BU
DOWNING	4-2-0	1838	Dunham	U

LONG ISLAND RAILROAD

Brooklyn, N. Y. Hicksville 27 miles

Original gauge 4′ 8½″

1832 Apr. 25 Brooklyn and Jamaica Railroad incorporated.
1834 Apr. 24 Long Island Railroad incorporated.
1835 Construction started.
1836 Apr. 18 Brooklyn and Jamaica Railroad completed.
1836 May 1 Brooklyn and Jamaica Railroad leased by the Long Island Railroad.

ARIEL	4-2-0	10x16 54″	1835	Baldwin #19	BU

Ordered by the Brooklyn and Jamaica Railroad. In service until 1855.

POST BOY	4-2-0	10x16 54″	1836	Baldwin #26	BU

This little locomotive had an astonishing career even though some of the details cannot be fully substantiated.

1852 Retired and sold.
1852 Rebuilt by Seth Wilmarth, Boston.
1852 Sold to the Central Railroad and Banking Company of Georgia as a shunting engine.
1853 Sold to the Southwestern Railroad of Georgia.
1866 Rented to the Macon and Brunswick Railroad.
ca. 1868 Sold to a lumber operator named McDonough.
1876 Sold to the Savannah, Skiddaway and Seaboard Railroad.
ca. 1878 Sold to a sawmill at Gardi, near Waycross.
1881 Still running but subsequent history lost.

HICKSVILLE 2-2-0 11x16 60″ 1836 Locks and Canals U

One of the first locomotives to have a whistle. Retired in 1848 and scrapped about 1853.

TAGLIONE 2-2-0 11x16 60″ 1838 Poughkeepsie B
re JOHN A. KING

This was the only locomotive built by the Poughkeepsie Locomotive Company. First run July 4, 1839. Renamed about 1841. Retired in 1868 and scrapped at Hunters Point in 1869.

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MAD RIVER AND LAKE ERIE RAILROAD

Sandusky, Ohio Bellevue 15 miles

Original gauge 4′ 10″
Strap iron rails 2¼″x⅝″

1832 Feb. 5 Incorporated to build from Sandusky, via Springfield, to Cincinnati.
1835 Sept. 7 Construction started.
1838 Construction completed from Sandusky to Bellevue.
1841 Completed from Sandusky to Tiffin.
1846 Completed from Sandusky to Springfield.

SANDUSKY 4-2-0 11x16 58″ 1837 Rogers, K. & G. #1 BUV

It is generally believed that Thomas Rogers built the locomotive SANDUSKY to show his ability in locomotive construction and with the hope of selling it to one of the New Jersey roads and also that the gauge of the track of the Mad River and Lake Erie Railroad (4′ 10″), which subsequently became the standard gauge in Ohio, was chosen to fit the already-built locomotive SANDUSKY. Such, however, was not the case. When the Mad River and Lake Erie Railroad was being organized, the proposed New York and Erie Railroad had not yet decided what gauge it would use but it was thought, with good reason, that the Erie would connect with the Paterson and Hudson River R. R., which had adopted the prevailing New Jersey gauge of 4′ 10″, and consequently there would be an extensive system of railroads extending from tidewater to Ohio. Unfortunately the New York and Erie quarreled with the state of New Jersey and not only selected Piermont, N. Y., as its eastern terminus but adopted, the unique gauge of 6′ 0″. Meanwhile, the records show clearly that, on March 30th, 1837, Col. John Hough James, president of the Mad River and Lake Erie R. R., ordered from Rogers two locomotives to be constructed for a track of 4′ 10″, to be delivered upon the opening of navigation at Sandusky City in 1839; one to be named the SANDUSKY and the second, which however was never delivered, was to be named WYANDOT.

It has also been stated that the SANDUSKY was the first locomotive to have a whistle but actually there were at least two earlier; the SUSQUEHANNA of the Wilmington and Susquehanna R. R., and the HICKSVILLE of the Long Island R. R.

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"Buckeye Titan," by W. E. and Ophia D. Smith (1953).

MADISON AND INDIANAPOLIS RAILROAD

Madison, Ind. Indianapolis 90 miles

Original gauge 4′ 8½″ (?)
Iron T rails 45#

1836 Jan. 27 Incorporated.
1837 Started
1839 20 miles completed.

MADISON	4-2-0	1837	Baldwin #100	BV
INDIANAPOLIS	4-2-0	1838	Baldwin #108	B

Lost at sea while en route via New Orleans.

INDIANAPOLIS	4-2-0	1839	Baldwin #134	B

MEXICAN GULF RAILROAD

New Orleans, La. Lake Borgne 5 miles

Original gauge 4′ 8½″ (?)
Strap iron rails 3″x1⅝″

1837 Incorporation
1837 14 miles completed and then the company failed. The property was taken over by the state and 5 miles operated.

LAKE BORGNE	4-2-0	1837	Norris	BV
NEW ORLEANS	4-2-0	1838	Norris	B

In 1839 von Gerstner reported one locomotive, evidently the LAKE BORGNE, but the Norris records show there were two. Either the NEW ORLEANS had not arrived at the time of his visit or, more likely, it had been sold elsewhere after the company got into financial difficulties. Possibly it was one of the engines which went to the Alexandria and Cheneyville R. R.

MICHIGAN CENTRAL RAILROAD

Detroit, Mich. Lake Michigan 196 miles

Original gauge 4′ 8½″
Strap iron rails 2¼″x⅝″

1832 Jan. 29 Incorporation of the Detroit and St. Joseph Railroad.
1837 Mar. 20 Acquired by the state of Michigan.
1838 Jan. 1 Opened from Detroit (Campus Martius) to Dearborn.
1838 Jan. 31 Opened to Ypsilanti.
1839 Oct. 11 Opened to Ann Arbor.
1840 Jul. Opened to Dexter.

IRONSIDES re GOV. MASON			1836	Dunham	UV
DETROIT	4-2-0	12x16 54″	1837	Baldwin #91	BUV
ANN ARBOR	4-2-0	12x16 54″	1837	Baldwin #93	BV
PITTSBURGH			1837	McClurg, Wade	BUV
MICHIGAN re YPSILANTI	4-2-0		1838	Baldwin #130	BUV

About 1840 transferred to the Michigan Southern Railroad.

MONROE	1840	Baldwin #148	B
DEXTER	1840	Baldwin #149	B

MICHIGAN SOUTHERN RAILROAD

Monroe, Mich. Adrian 68 miles

Original gauge 4′ 8½″
Strap iron rails 2¼″x⅝″

1837 Mar. 20 Southern Railroad of Michigan chartered to build from the River Raisin to New Buffalo.
1840 Nov. 30 Completed from Monroe to Adrian.

YPSILANTI 4-2-0 1838 Baldwin #130

Transferred in 1840 from the Central Railroad of Michigan.

MISSISSIPPI RAILROAD

Natchez, Miss. Clinton ca. 85 miles

Original gauge Probably 4′ 8½″
Rails Iron T rails, 40#

1836 Jan. Incorporated.
1837 Apr. Completed from Natchez to Hamburg, 19 miles
1839 Aug. 31 Completed from Natchez to Harrison, 25 miles.

MISSISSIPPI	0-4-0	9½x16 43″	1836	H. R. Dunham & Co.	V
???			1836	H. R. Dunham & Co.	V
HERCULES	4-2-0		1839	Baldwin #119	BV
NATCHEZ	4-2-0		1839	Baldwin #152	BV

The MISSISSIPPI passed through the hands of many owners finally being acquired by the Illinois Central Railroad in 1891. It was reconditioned in 1893 and has been exhibited on many occasions. It is now exhibited at the Museum of Science and Industry at Chicago.

MOBILE AND CEDAR POINT RAILROAD

Mobile, Ala. Cedar Point 26 miles

Original gauge Unknown
Strap iron rails 2″x⅝″

1835 Jan. Incorporated.
1837 Jan. Five miles from Mobile toward Cedar Point completed and opened for traffic.

ECLIPSE 4-2-0 1837 Baldwin #77 BUV

MOHAWK AND HUDSON RAILROAD

Albany, N. Y. Schenectady 12.5 miles

Original gauge 4′ 9″

1826 Apr. 7 Incorporated.
1831 Aug. 13 Completed.

DeWITT CLINTON 0-4-0 5½x16 48″ 1831 West Point Foundry BC

First run Aug. 9, 1831; retired in 1832 and scrapped in 1836.

ROBERT FULTON JOHN BULL	0-4-0	10x14 48″	1831	Stephenson #24	BC

In 1834 changed to 4-2-0 type and renamed John Bull.

EXPERIMENT BROTHER JONATHON	4-2-0	9½x16 60″	1832	West Point Foundry	BC

The first locomotive to have a leading truck. In 1834 renamed Brother Jonathon.

BROTHER JONATHON MOHAWK	4-2-0	10x14 48″	1834	Stephenson #60	BC

Renamed on arrival.

ROBERT FULTON HUDSON	4-2-0	10x14 48″	2/1834	Stephenson #61	BC

Renamed on arrival.

MONROE RAILROAD

Macon, Ga. Forsyth 24 miles

Original gauge 5′ 0″ (?)
Strap iron rails 2½″x⅝″

1833 Incorporated.
1839 Completed.

MACON	4-2-0	1838	Baldwin #110	BV
GRIFFEN	4-2-0	1838	Baldwin #113	BV
??	4-2-0	1838	Norris	BV

MONTGOMERY AND WEST POINT RAILROAD

Montgomery, Ala. West Point, Ga. 87 miles

Original gauge 5′ 0″ (?)
Strap iron rails 2½″x⅝″

1840 Completed

ABNER McGEHEE	4-2-0	12x22 54″	1839	Rogers, K & G #12	B
rebuilt	4-4-0				
WEST POINT	4-2-0	10x16 54″	1840	Jas. Brooks	B

The ABNER McGEHEE was later reported in service on the Florida Railroad but it must have been rented only since it remained on the roster of the Montgomery and West Point R. R. until 1863.

MORRIS AND ESSEX RAILROAD

Newark, N. J. Morristown 23 miles

Original gauge 4′ 10″
Strap iron rails 2½″x⅝″

1835 Jan. 29 Incorporated.
1836 Nov. 19 Completed from Newark to Orange. Operated by horses.
1837 Oct. 2 Completed from Newark to Madison and locomotive used.
1838 Jan. 1 Completed from Newark to Morristown.

ORANGE	4-2-0	8¼x26	1837	Seth Boyden # 1	UV

Scrapped in 1863.

ESSEX	4-2-0		1837	Seth Boyden	UV

Sold in 1851 to the Iron Railroad of Ohio.

SPEEDWELL	4-2-0		1838	Baldwin #106	BUV

Returned to Baldwin in 1846 as part payment for a new locomotive.

DOVER	4-4-0	10x16 54"	1841	Baldwin #146	B

NASHUA AND LOWELL RAILROAD

Lowell, Mass. Nashua, N. H. 14.5 miles

Original gauge 4' 8½"
T rails 57#

1835 Apr. 28 Incorporated.
1838 Oct. 8 Completed.

MARS	4-2-0	11x16	1838	Dunham	V

1857 sold to the St. Croix and Penobscot R. R.

JEHU	4-2-0	11x16	1838	Dunham	V

1847 sold to the Northern Railroad of New Hampshire. Scrapped 1854.

ROEBUCK	4-2-0	11x18	1838	Locks and Canals	BV

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NEW BEDFORD AND TAUNTON RAILROAD

Taunton, Mass. New Bedford 20 miles

Original gauge 4' 8½"
Iron T rails 58#

1839 Incorporated.
1840 Jul. 2 Completed.

TAUNTON	2-2-0	12x18 54"	1839	Locks and Canals
OLD COLONY	2-2-0	12x18 54"	1840	Locks and Canals
PHOENIX	2-2-0	12x18 54"	1840	Locks and Canals

NEW JERSEY RAIL ROAD AND TRANSPORTATION COMPANY

Jersey City, N. J. New Brunswick 34 miles

Original gauge 4' 10"
Iron T rails 37#

1832 Mar. 7 Incorporated.
1834 Sept. 1 Completed from Newark, across the Meadows, to the west side of Bergen Hill. Worked by horses.
1834 Oct. Temporary line over Bergen Hill to Jersey City completed. Because of the steep grades, horses had to be used until the Bergen Cut was completed in 1838.

1835	Dec.	Completed to Elizabeth.
1835	Dec. 30	Completed to Rahway.
1836	July 1	Completed to East Brunswick.
1837	Oct. 31	Completed to New Brunswick
1840		Through service to Philadelphia in connection with the Camden and Amboy Railroad.

AVERY'S ROTARY	0-4-0 (?)	1835	William Avery	

"New rotary steam engine locomotive of Wm. Avery of the Newark R. R., is in operation." (ARRJ—Mar. 21, 1835).

"Excursion to Newark on the railroad—cars drawn by Avery's Rotary Engine." (ARRJ—Mar. 28, 1835).

This rotary engine, presumably an early turbine, was not a success and, after a short time, the experiments were abandoned.

NEWARK	4-2-0	1835	Baldwin #16	BUV

First run Dec. 2, 1835.

NEW JERSEY	4-2-0	1836	Baldwin #21	BUV
NEW BRUNSWICK	4-2-0	1836	Baldwin #27	BUV
E. TOWNSEND re ELIZABETH	4-2-0	1837	Baldwin #87	BUV
RAHWAY	4-2-0	1837	Baldwin #70	BUV
NEW YORK	4-2-0	1837	Dunham	UV
ARRESSEOH	4-2-0	1838	Rogers #2	BUV
UNCLE SAM	4-2-0	1839	Rogers #11	B

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NEW ORLEANS AND CARROLLTON RAILROAD

New Orleans, La. Carrollton 7.25 mi.

Original gauge 5' 6"
Strap iron rails 2½"x¾"

1835	Mar. 15	The New Orleans city council granted a franchise to the New Orleans and Carrollton Railroad.
1835	Sept. 26	Operation commenced on 3 miles of line on Baronne St., and St. Charles Ave. Horses were used for the first year. Seven locomotives were ordered for delivery the following year but, because of the commercial depression, the orders for one Baldwin and four Stephensons were cancelled and only two Norris engines were actually received. Possibly Norris was more generous in extending credit.
1836		Locomotives first used.
1893	Feb. 1	Converted to electric operation.

CLINTON	4-2-0	1836	Baldwin #52	B

Apparently this engine was not delivered but was sold by Baldwin in 1839 to the Clinton and Port Hudson R. R.

MORNING STAR	2-2-2 16x16 78"	1836	Stephenson #149	B
NORTH STAR	2-2-2 16x16 78"	1836	Stephenson #150	B
EVENING STAR	2-2-2 16x16 78"	1839	Stephenson	B
DOG STAR	2-2-2 16x16 78"	1839	Stephenson	B

These engines were never delivered, although the NORTH STAR was reported to have gotten as far as New York and then returned to England. They were sold to the Great Western Railway and Stephensons rebuilt them from the 5′ 6″ gauge of the N. O. & C. to the 7′ gauge of the G. W. R. It was just as well because, although they were extremely successful on fast long distance runs on the Great Western, they would have been almost useless on the New Orleans and Carrollton, which was a short suburban line with frequent stops.

ENTERPRISE	4-2-0	10½x18	48″	1836	Norris	BUV
INDUSTRY	4-2-0	10½x18	48″	1836	Norris	BUV

Norris class C engines and the first to actually run on the line.

LAFAYETTE	4-2-0	9x18	48″	1837	Norris	BUV
WASHINGTON	4-2-0	9x18	48″	1837	Norris	BUV

Norris class C engines.

NEW ORLEANS				1838	Hicks	BUV

The wheel arrangement and dimensions of this engine are not known; probably it was either 2-4-0 or 4-2-0.

Ex "British Trains—Past and present" (1951) by O. S. Nock, B.Sc. (Eng.), A.M.I.C.E., M.I.Mech.E.

In complete contrast was the position on the Great Western, where nothing but the very best was good enough for Daniel Gooch and his great chief, Brunel. It is true they started with a collection of questionably reliable engines, but in 1838 the magnificent NORTH STAR began work, and she proved the forerunner of a stud of excellent engines, also named after stars; and this series, put to work in 1839-41, proved to the pioneer days of the Great Western much the same as their namesakes of 1907 became to the Great Western of my boyhood days at Reading. The names are worth recalling in full:

Engine	Date delivered
North Star	1837
Morning Star	1838
Evening Star	1839
Dog Star	1839
Polar Star	1840
Red Star	1840
Lode Star	1841
Rising Star	1841
Bright Star	1841
Shooting Star	1841
Western Star	1841
Royal Star	1841

Yet it was only by a curious circumstance that the first four engines of this series came into the hands of the Great Western. The builders, Messrs. Robert Stephenson & Co., had an order from the New Orleans Railway for four passenger engines of the 2-2-2 type. The first of these was actually shipped to America; but in the meantime financial difficulties had arisen and it was never landed. Back to England it duly

came, and was thereupon snapped up by the Great Western Railway, Stephensons making the necessary changes to convert it from the 5 ft. 6 ins. gauge of the New Orleans line to the 7 ft. of the Great Western. This engine was none other than the North Star. The Morning Star never left England and the two remaining ones were altered by Stephensons in the course of their construction and came to the Great Western in 1839 as the Evening Star and the Dog Star.

They were all large and handsome engines, with driving wheels 7 ft. in diameter, with ornate brass splashers, the sandwich type frame outside the wheels, and a broad running plate from the driver's footplate to the front, with a handrail for further support when climbing forward. Most of them had domeless boilers, and their general appearance set the fashion for broad-gauge express engines for the ensuing fifty years.

NEW ORLEANS AND NASHVILLE RAILROAD

Canton, Miss. Newton, Miss. 22.5 miles

Original gauge 5′ 0″ (?)
Strap iron rails 3″x1⅝″

Projected to run from Nashville, Tenn., via Tuscumbia, Ala., and Jackson, Miss., to New Orleans, La.
1837 Incorporated in the state of Mississippi.
1839 Completed from Newton, Miss., through Jackson to Canton, Miss.

??			1836	Dunham	UV
??			1836	Newcastle	UV
P. H. CALDWELL	4-2-0		1839	Baldwin #122	BV

NEW YORK AND ERIE RAILROAD

Piermont, N. Y. Dunkirk 446 miles

Original gauge 6′ 0″
Iron T rails

1832 Apr. 22 Incorporated.
1835 Construction started at Deposit, N. Y.
1840 Opened from Piermont to Ramapo.

1. ELEAZAR LORD	4-4-0	13x20 48″	1840	Norris
2. PIERMONT	4-4-0	13x20 48″	1840	Norris
3. ROCKLAND	4-4-0	13x20 48″	1840	Norris

NEW YORK AND HARLAEM RAILROAD

New York (City Hall) Harlaem (135th St.) 6.75 miles

Original gauge 4′ 8½″

1831 Aug. 25 Incorporated.
1832 Feb. 23 Construction started at Murray Hill.
1832 Nov. 26 Completed from Prince Street, up the Bowery, to 14th Street.
1833 Jun. 10 Completed to Sunfish Pond at 32nd Street.

1834	May 1	Murray Hill cutting completed and service to 85th Street, Yorkville, started.
1837	Oct. 26	Tunnel under Observatory Hill completed and Service extended to 135th Street, Harlaem.
1837		Murray Hill cutting roofed over and converted into a tunnel.
1840	May 7	Authorization to build from the Harlaem River, up through Westchester county, to intersect the line of the New York and Albany Railroad (never built) and a branch eastward to connect with railroads in Connecticut.

NEW YORK	4-2-0	11x16	45″	1837	Dunham	U
HARLAEM	4-2-0	11x16	45″	1837	Dunham	U
YORKVILLE	4-2-0	11x16	45″	1837	Dunham	U
MANHATTANVILLE	4-2-0	11x16	45″	1837	Dunham	U
WESTCHESTER	4-2-0	11x16	45″	1840	Norris	B

Alvin F. Harlow, in his "The Road of the Century," p. 125, states:

> ". . . had long since been authorized to buy two good locomotives, but was considering the relative merits of those of English and American make before buying. Several had been tested on the company's tracks between 1834 and 1837—one of them the creation of one of the company's mechanics—but none of them seemed satisfactory until the GEORGE WASHINGTON, built by Norris of Philadelphia, was exhibited, and then the directors decided in favor of American machines. Even after the first one was bought and delivered in 1837, Director Isaac Adriance wanted to discard it, but he was voted down."

It would be interesting to know just what locomotives were tested on the New York and Harlaem Railroad although a good guess would be that all the locomotives built during that period by the West Point Foundry and by H. R. Dunham & Co. were tested on the Harlaem tracks. The GEORGE WASHINGTON was built by Norris in 1836 for the state of Pennsylvania and the following year was sent to the Allegheny Portage Railway. It is strange that the successful trial of this locomotive did not lead to any sales but the road was subjected to intense political pressure and, no doubt, the directors found it expedient to buy from a local manufacturer.

NEW YORK, PROVIDENCE AND BOSTON RAILROAD

Providence, R. I. Stonington, Conn. 47.5 miles

Original gauge 4′ 8½″
T rails 58 lbs.

1832	Jun.	Incorporated.
1837	Nov. 10	Completed.

APPONAUG	2-2-0	11x16	60″	1836	Locks & Canals	BV

Rebuilt 4-2-2.

GREENWICH	2-2-0	11x16	60″	1836	Locks & Canals	BV
LITTLE REST	2-2-0	11x16	60″	1836	Locks & Canals	BV

Rebuilt 4-2-2. Later sold to the St. Croix and Penobscot R. R.

PAWCATUCK re ROGER WILLIAMS	2-2-0	11x16	60″	1836	Locks & Canals	BV

Rebuilt 4-2-2.

STONINGTON	2-2-0	12x18	54″	1836	Locks & Canals	BV

Rebuilt 4-2-2.

RHODE ISLAND	2-2-0	12x18	54″	1836	Locks & Canals	BV

Four locomotives, (2-2-0, 12x18, 60″), were built in 1837 by R. & W. Hawthorn, of Newcastle-on-Tyne, for this railroad but, presumably because of the commercial depression of that year, the order was cancelled and the engines were sold elsewhere. Two of them went to the Stockton and Darlington Railway as no. 27 SWIFT and 28 SUNBEAM and the other two went to France for le chemin de fer Paris-Versailles.

See R&LHS Bulletins 13 and 43.

NEWCASTLE AND FRENCHTOWN RAILROAD

Newcastle, Del. Frenchtown, Del. 16.19 miles

Original gauge 4′ 8½″
T rails 40#

1829	Feb. 7	Incorporated.
1831	July 4	Completed.

DELAWARE	2-2-0	11x16	60″	1831	Stephenson #23	BKUV
PHOENIX	0-4-0	9x20	54″	1832	Stephenson #28	BKUV
MARYLAND	0-4-0	9x20	54″	1832	Stephenson #29	BKUV

Renamed Pennsylvania.

VIRGINIA	2-2-0	9x16	60″	1833	Stephenson #52	BKUV
NEWCASTLE	2-2-0	11x16	60″	1834	Young	KUV
COMET	4-2-0	11x16	60″	1835	Young	KUV

There is a drawing of the Delaware in J. G. H. Warren's 'A Century of Locomotive Building by Robert Stephenson & Co.'

R&LHS Bulletin no. 18, pp. 28-39.

NORTHERN CROSS RAILROAD

Meredosia, Ill. Jacksonville, Ill. 24.0 miles

Original gauge 4′ 8½″ (?) (Possibly 5′ 0″)
Strap iron rails ¾″x2¼″

1837		Chartered to build from Quincy, Ill., eastward to the Illinois-Indiana state line.
1838	July 18	Opened from Meredosia, on the Illinois River, to Morgan City.
1840	Jan. 1	Opened from Meredosia to Jacksonville.

ILLINOIS	4-2-0	1838	Baldwin #107	B

Lost at sea while en route from Philadelphia.

ROGERS	4-2-0	1838	Rogers #4	BV

Formerly the EXPERIMENT; sent on trial to the South Carolina Canal and Railroad Company but refused by that company. Bought in 1838 by the Northern Cross R. R. to replace the lost ILLINOIS.

ILLINOIS (2)	4-2-0	1839	Baldwin #127	

NORWICH AND WORCESTER RAILROAD

Worcester, Mass. Norwich, Conn. 59 miles

Original gauge 4′ 8½″
T rails 56#

1836 Apr. 10 Incorporated.
1840 Mar. 9 Completed.

NORWICH	4-2-0	1839	Rogers K & G #13	BV
WORCESTER	4-2-0	1839	Rogers K & G #16	BV
CONCORD	4-2-0	1839	Rogers K & G #17	BV
NASHUA	4-2-0	1839	Rogers K & G #19	BV
BAY STATE	4-2-0	1840	Norris	B
OLIVER EVANS	4-2-0	1840	Norris	B
GEN. LINCOLN	4-2-0	1840	Norris	B
WEBSTER	4-2-0	1840	Norris	B

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PATERSON AND HUDSON RIVER RAILROAD

Paterson, N. J. Newark 14 miles

Original gauge 4′ 10″
Strap iron rails 2½″x⅝″

1831 Jan. 21 Incorporated.
1832 Jun. 9 Completed from Paterson to Aquakonauk Landing, on the Passaic River, connecting there with ferryboats to New York. Double deck cars hauled by horses.
1833 Dec. 11 Completed from Paterson to a connection with the New Jersey Railroad and Transportation Company.
1834 Jun. 4 Through service from Paterson to Newark and Jersey City.

McNEILL	0-4-0	9½x16	48″	1833	Braithwaite	BKUV

First run April 1835. Probably rebuilt 4-2-0. Sold in 1855, for $550, to the Carroll Branch Railroad, in Ohio. Scrapped about 1859.

WHISTLER	2-2-0	1835	Locks and Canals	BKUV
BALTIMORE		1836	Gillingham & Winans	KUV
NEW YORK		1836	Gillingham & Winans	KUV

PETERSBURG RAILROAD

Petersburg and Roanoke Railroad
Petersburg, Va. Weldon, N. C. 63 miles
Raleigh and Gaston Railroad
Raleigh, N. C. Gaston, N. C. 84
Greenville and Roanoke Railroad
Gaston, N. C. Hicksford, Va. 17.6

Original gauge 5′ 0″
Strap iron rails 2″x2½″

1830	Feb. 10	Incorporation of the Petersburg and Roanoke Railroad to build from Petersburg, Va., southward to the Roanoke River.
1831		Construction started.
1833	Jun.	Petersburg and Roanoke Railroad completed.
1835		Incorporation of the Raleigh and Gaston Railroad to build from Raleigh, N. C., to the falls of the Roanoke River.
1835	Nov.	Incorporation of the Greenville and Roanoke Railroad to form a connecting link between the Petersburg Railroad and the Raleigh and Gaston Railroad.
1837	Apr. 3	Greenville and Roanoke Railroad completed.
1839	July	Raleigh and Gaston Railroad completed.

There is some confusion in connection with the locomotives on this group of railroads; the U. S. Treasury Report of 1838 gives the erroneous impression that most of them were owned by the Raleigh and Gaston Railroad, which actually owned no locomotives. The Raleigh and Gaston Railroad got into financial difficulties long before it was completed and the Petersburg Railroad took it over, together with the four locomotives which it had ordered—the GASTON, RALEIGH, ROANOKE and VIRGINIA. The Petersburg Railroad supplied the necessary rolling stock to the Raleigh and Gaston Railroad until 1845 when it sold the road and six locomotives to the state of North Carolina.

The assumption that four locomotives were rebuilt by Wm. Norris and renamed is hypothetical but no other explanation seems possible.

1. ROANOKE 0-4-0 11x16 54″ 1832 Bury #7 BV

Sold in 1836 to the Richmond, Fredericksburg and Potomac Railroad.

2. PIONEER 2-2-0 9x14 54″ 1832 Rothwell #4 BV

There is a drawing of this locomotive in Ahrons' "The British Steam Locomotive," page 22, fig. 16. There is no reason to suppose that this locomotive later went to the Bangor and Piscataquis Railroad and Canal Company as is often stated.

3. LIVERPOOL 0-4-0 9x18 54″ 1830 Bury #2 BUV

This locomotive had an astonishing career before it reached the Petersburg Railroad in 1833.

1830 Jul. 30. Building of the engine started, for possible sale to the Liverpool and Manchester Railway.

1830 Oct. Engine completed, 0-4-0, 12x18, 72″. Return flue boiler.

1830 Nov. Tested by the Liverpool and Manchester Railway but not bought because of the objections of George Stephenson.

1831 Spring. Engine rebuilt with a new boiler, after which Edward Bury made his well-known drawing of it, showing the flock of "livers" marching around the top of the smokestack.

1831 June. Again tried on the Liverpool and Manchester Railway and again rejected because of George Stephenson's continued objections.

1831 July. Sold to the Bolton and Kenyon Railway.

1832 Feb. (ca). Wrecked on the Bolton and Kenyon Ry.

1832. Rebuilt by Bury with smaller cylinders and wheels (0-4-0, 9x18, 54″) and altered to 5′ 0″ gauge and sold to the Petersburg Railroad. Probably not much of the original engine remained.

1833 Apr. 13. Arrived at Petersburg and proved to be very successful, resulting in additional orders for Bury.

4. APPAMATTOX	0-4-0	11x16 54″	1833	Bury #9	BUV
5. MEHERRIN	0-4-0	11x16 54″	1833	Bury #8	BUV
6. NOTTOWAY	0-4-0	9x18 54″	1833	Rothwell #5	BUV
7. STAUNTON	2-2-0	11x18 60″	1833	Bury #12	BUV
8. PETERSBURG	2-2-0	11x18 60″	1833	Bury #13	BUV
9. WELDON	0-4-0	10½x16 42″	1836	Braithwaite	

Believed converted to 4-2-0 type by Wm. Norris in 1837 and renamed CLARKSBURG.

10. RALEIGH	0-4-0	12x16 54″	1836	Tayleur #38	BUV

Believed converted to 4-2-0 type about 1840 by Wm. Norris.

11. GASTON	0-4-0	12x16 54″	1836	Tayleur #39	BUV

Renamed GRANVILLE and believed converted to 4-2-0 type in 1840 by Wm. Norris.

12. ROANOKE	0-4-0	14½x20 66″	1837	Bury #57	BUV
13. VIRGINIA	0-4-2		1837	Hicks	UV
NEW YORK	2-2-2	(?)	1833	Mather, Dixon	
PHILADELPHIA	2-2-2	(?)	1833	Mather, Dixon	
PETERSBURG	2-2-2	(?)	1833	Mather, Dixon	
re TEMPEST	4-2-0				
TORNADO	4-2-0				
VOLCANO	4-2-0				

There is a good deal of mystery surrounding these three locomotives. Although built in 1833 it is probable that they were bought about 1836. It is also probable that the road wanted Bury engines but Bury was too busy or the agents were able to pick up the Mather, Dixon engines, perhaps at cut prices. The original names seem to have been given by the builders for identification purposes only and the engines were renamed on arrival. In their original form, perhaps 2-2-2 type, they were unsatisfactory and, about 1837, they were sent to Wm. Norris for conversion to 4-2-0 type. They were not noted in the U. S. Report of 1838 nor by von Gerstner in 1839 but they must have been back in service by July 1839 as the TORNADO was the first locomotive to arrive at Raleigh.

YADKIN	4-2-0 (?)	1837	D. I. Burr	UV

In 1845 the Petersburg Railroad sold to the state of North Carolina, the Raleigh and Gaston Railroad, the following locomotives:

CLARKSBURG
GRANVILLE
RALEIGH
TEMPEST
TORNADO
VOLCANO

All were still running in 1857.

PHILADELPHIA AND COLUMBIA RAILROAD

Philadelphia, Pa. Columbia 82 miles

Original gauge 4' 8½"
T rails 42 lbs.

1823 Mar. 21 Charter granted to John Stevens for the Pennsylvania Railroad, to build from Philadelphia to Columbia. Although not used, this was the second railroad charter issued in America.
1824 Mar. 27 The state of Pennsylvania appointed a Board of Commissioners to promote the construction of a "Main Line of Public Works", consisting of railroads and canals, extending from Philadelphia to Pittsburgh.
1828 Mar. 24 The state appropriated $2,000,000.00 to begin the construction of a railroad from Philadelphia to Columbia.
1832 Sept. 20 Completed from Philadelphia to Paoli.
1834 Apr. 15 Commissioners authorized to use locomotives.
1834 Apr. 16 Completed from Philadelphia to Columbia. At first the railroad was a public highway and, by paying a toll, anyone could use their own horses and vehicles.

GREEN HAWK	2-2-0	1832	Col. S. H. Long
BLACK HAWK	2-2-0	1833	Col. S. H. Long
? ?	2-2-0	1833	Col. S. H. Long

These three locomotives were designed to burn anthracite coal and they were not successful. It is believed that some changes were made and then they were sold to the Boston and Providence Railroad where they were able to function properly only after being rebuilt. (R&LHS Bulletin 79).

FIREFLY	4-2-0	9x14	54"	7/1835	Tayleur #4	BC
RED ROVER	4-2-0	9x14	54"	7/1835	Tayleur #5	BC

These were the first successful locomotives on the road but, because of their small size, they were retired in 1836 or 1837 and sold, in 1838 to the Camden and Woodbury Railroad, where they ran until that road was abandoned in 1845. One of them is believed to have gone then to the Portsmouth and Roanoke Railroad. There is a drawing of the FIREFLY in Ahrons' "The British Steam Locomotive," page 26, fig. 20. The U. S. Report has RED CLOVER.

LANCASTER	4-2-0	9x16	54"	6/1834	Baldwin #3	BCKUV
COLUMBIA	4-2-0	10½x16	54"	9/1834	Baldwin #4	BCKUV
PHILADELPHIA	4-2-0	11x16	54"	11/1834	Baldwin #6	BCKUV
PENNSYLVANIA	4-2-0	10½x16	54"	1/1835	Baldwin #7	BCKUV
DELAWARE	4-2-0	10½x16	54"	2/1835	Baldwin #8	BCKUV
SUSQUEHANNA	4-2-0	10½x16	54"	3/1835	Baldwin #9	BCKUV
SCHUYLKILL	4-2-0	10½x16	54"	4/1835	Baldwin #10	BCKUV
PENNSYLVANIA re COMET/ PLANET	4-2-0	10x15	54"	1834	Stephenson #104	B
PHILADELPHIA re PLANET/ COMET	4-2-0	10x15	54"	1834	Stephenson #105	B

The COMET was rebuilt by E. A. G. Young in 1836 and sent to the Allegheny Portage R. R. in 1837. In 1839 it carried the name NORTH AMERICA.

KENTUCKY	2-2-0	10x16 60″	1835	Stephenson #110	BCUV
JOHN BULL	2-2-0	10x16 60″	1835	Stephenson #112	BCUV
ATLANTIC	2-2-0	10x16 60″	1835	Stephenson #113	BCUV

Ordered through A. & G. Ralston, importers of Philadelphia. The JOHN BULL should not be confused with the locomotive of the same name on the Camden & Amboy R. R. and now preserved in the Smithsonian Institution. The KENTUCKY was renamed COLUMBUS.

ALBION	2-2-0	10x16 60″	1835	Stephenson #117	B
	4-2-0		1837	E. A. G. Young	CKUV

Rebuilt upon arrival.

KENTUCKY	4-2-0	10x18	7/1835	Baldwin #14	BCKUV

Sent to Allegheny Portage R. R. in 1845.

JUNIATA	4-2-0	10x18	9/1835	Baldwin #15	BCKUV
BRANDYWINE	4-2-0	10x18	10/1835	Baldwin #18	BCKUV

In 1857 became Pennsylvania R. R. #141.

WILLIAM PENN	4-2-0	10/1835	Norris	CV

Not noted in U. S. Report of 1838 and presumably out of service at the time.

OHIO	4-2-0	2/1836	Baldwin #22	BCKV

Sent to Allegheny Portage R. R. in 1845.

ROBERT MORRIS	4-2-0	5/1836	Norris	CK
GEORGE WASHINGTON	4-2-0	7/1836	Norris	CK
BENJAMIN FRANKLIN	4-2-0	8/1836	Norris	CK

All three sent to Allegheny Portage R. R. in 1837.

AMERICA	4-2-0	9/1836	Coleman, Sellars	CUV
SAMPSON	4-2-0	9/1836	Coleman, Sellars	CUV
WASHINGTON COUNTY FARMER	4-2-0	10/1836	Norris	CUV
FIREFLY	2-2-0	10x16 60″	1836 Stephenson #129	B
RED ROVER	2-2-0	10x16 60″	1836 Stephenson #139	B

In the purchase of these two locomotives, the Commissioners acted as agents for the Lexington and Ohio Railroad, for which company the engines were intended. Presumably they were set up and tested by the Philadelphia and Columbia R. R., and then shipped west to Kentucky, where they were renamed NOTTAWAY and ELKHORN.

BACKWOODSMAN	4-2-0	11/1836	McClurg, Wade	CK

Built for the Allegheny Portage Railroad.

WEST CHESTER	4-2-0	10½x16	2/1837	Baldwin #63	BCKUV
PAOLI	4-2-0	10½x16	2/1837	Baldwin #65	BCKUV

VIRGINIA	4-2-0	10½x16	2/1837 Baldwin #66	BCKUV
CONESTOGA	4-2-0	10½x16	2/1837 Baldwin #67	BCKUV
EDWARD F. GAY	4-2-0	10½x16	3/1837 Baldwin #68	BCKUV
OCTORARA	4-2-0	10½x16	4/1837 Baldwin #69	BCKUV

The PAOLI was sent to the Allegheny Portage Railroad in 1845.

TUSCARORA	4-2-0		1837 Baldwin #73	B

Apparently this locomotive was never delivered to the Philadelphia and Columbia Railroad and was sold elsewhere. Careful consideration of the "Overs and Shorts" list suggests that it went to the South Carolina Canal and Railroad Co., as the BUENA VISTA.

PEQUA	4-2-0	10½x16	4/1837 Baldwin #74	BCKUV
INDIANA	4-2-0	10½x16	5/1837 Baldwin #75	BCKUV
MISSISSIPPI	4-2-0	10½x16	5/1837 Baldwin #78	BCKUV
MONTGOMERY	4-2-0	10½x16	5/1837 Baldwin #79	BCKUV
WISCONSIN	4-2-0	10½x16	5/1837 Baldwin #81	BCKUV
DOWNINGTON	4-2-0	10½x16	4/1837 Baldwin #88	BCKUV

Later, the MISSISSIPPI was sold to the Mine Hill and Schuylkill R. R., and the MONTGOMERY went to the Wilkes-Barre Coal Co.

PITTSBURGHER			3/1837 McClurg, Wade #2	CK

Built for the Allegheny Portage Railroad.

BALD EAGLE	4-2-0		3/1837 Garrett & Eastwick	CKUV
TELEGRAPH	4-2-0		4/1837 Garrett & Eastwick	CKUV
ENTERPRISE	4-2-0		5/1837 Garrett & Eastwick	CKUV
LAFAYETTE	4-2-0		3/1837 Norris	C
JAMES MADISON	4-2-0		3/1837 Norris	CK
BUSH HILL	4-2-0		4/1837 Norris	CK
UNITED STATES	4-2-0		5/1837 Norris	CK
CONSTITUTION	4-2-0		6/1837 Norris	CK
INDEPENDENCE	4-2-0		7/1837 Norris	CK

All built for the Allegheny Portage Railroad.

BALTIMORE	0-4-0	12½x24 36"	1837 Ross Winans	V

Crab type.

ANTHRACITE			1837	

Probably a small 0-4-0 type built by Garrett & Eastwick. On Oct. 31, 1837, Knight and Latrobe reported it as being in service on the Philadelphia and Columbia R. R., but not intended for that road. No positive identification has been made but there is a reasonable presumption that it was the missing engine of the Little Schuylkill Navigation, Railroad and Coal Co.

G. P. PORTER	4-2-0		1839 H. R. Campbell	V
ANDREW JACKSON	4-2-0		1839 H. R. Campbell	V
JAMES BUCHANAN	4-2-0		1839 H. R. Campbell	V
SIMON CAMERON	4-2-0		1839 Norris	V
SIMON SNYDER	4-2-0		1839 Norris	V
E. B. HUBLEY	4-2-0		1839 Baldwin, V & H. #123	BV
MARTIN VAN BUREN re JAMES R. CLARKE	4-2-0		1839 Baldwin, V. & H. #125	BV
OLD BERKS	4-2-0		1839 D. H. Dotterer	V
H. A. MUHLENBURG	4-2-0		1839 D. H. Dotterer	V

PHILADELPHIA AND READING RAILROAD

Philadelphia, Pa. Reading 54.5 miles

Original gauge 4' 8½"
T rails 45#

1833 Apr. 4 Incorporated to build from Philadelphia to Reading.
1837 Authorized to build beyond Reading to Port Clinton.
1838 July 16 Completed from Reading to Norristown; connections to Philadelphia via the Philadelphia, Germantown and Norristown Railroad.
1842 Jan. 13 Completed to Mount Carbon.

NEVERSINK 4-2-0 10½x16 54" 1836 Baldwin #40 BCUV

Boiler exploded in 1846 and engine rebuilt as a 0-6-0 type.

DELAWARE 0-4-0 14x24 42" 1837 Ross Winans BCUV

Retired in 1845.

ROCKET 0-4-0 10½x16 42" 1836 Braithwaite BCUV

Retired in 1879. Since October 1933 loaned to the Franklin Institute in Philadelphia.

FIREFLY 0-4-0 10½x16 42" 1838 Braithwaite BCUV
re ENGINEER

Renamed in 1843; 1848 boiler exploded; 1863 rebuilt as a 0-4-0T; scrapped in 1879.

SPITFIRE 0-4-0 10½x16 42" 1838 Braithwaite BCUV

Sold in 1851 to Liggett's Gap Railroad; resold in 1859 to Spencer Coal Co., Dunmore, Pa. Scrapped in 1880.

PLANET 0-4-0 10½x16 42" 1838 Braithwaite BCUV

Sold in 1872 to W. B. Ogden, probably for use on a small lumber road in Wisconsin.

DRAGON 0-4-0 10½x16 42" 1838 Braithwaite BCUV
re ATALANTA

Renamed in 1841; sold in 1853 to the Richmond and Danville Railroad.

COMET 0-4-0 10½x16 42" 1838 Braithwaite BCV
re ANTELOPE

Rebuilt 0-6-0 and renamed in 1845; sold in 1871 to the American Dredging Co.

GOWAN & MARX 4-4-0 12½x18 42" 1839 Eastwick & Harrison C

Angus Sinclair and Joseph Harrison, Jr., gave the dimensions as shown but a company report, dated Feb. 24, 1840, shows them to have been 12-2/3x16 40". (Bulletin 35, pp. 13-14).

HICHENS & HARRISON re SEMINOLE	4-2-0	12½x16 48″	1839	Baldwin #139	BC

Renamed in 1844; scrapped in 1863.

HECLA	0-4-0	10½x16 42″	1840	Braithwaite	BC

Sold in 1852 to John O'Fallon, St. Louis, Mo.

GEM re GAZELLE	0-4-0	10½x16 42″	1841	Braithwaite	BC

Rebuilt 0-6-0 and renamed in 1845; sold in 1853 to the Camden and Atlantic Railroad.

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PHILADELPHIA AND TRENTON RAILROAD

Philadelphia, Pa. Trenton, N. J. 28.2 miles

Original gauge 4′ 8½″ (?)
Strap iron rails 2¼″x⅝″

1832 Feb. 23 Incorporated.
1834 Nov. 1 Completed.

TRENTON	4-2-0	10½x16 54″	1834	Baldwin #5	BUV
BLACK HAWK	4-2-0		1835	Baldwin #11	BUV
PENNSYLVANIA	4-2-0		1836	Baldwin #45	BUV
NEW JERSEY	4-2-0		1836	Baldwin #58	BUV
PHILADELPHIA	4-2-0		1839	Baldwin #165	BV

The Philadelphia was intended originally for the Elizabethtown and Somerville Railroad but, for some unknown reason, it was diverted to the Philadelphia and Trenton Railroad.

PHILADELPHIA, GERMANTOWN AND NORRISTOWN RAILROAD

Philadelphia, Pa. Norristown 33.7 miles

Original gauge 4′ 8½″
T rails 40#

1831 Feb. 17 Incorporated.
1832 May Completed from Philadelphia (9th and Spring Garden Sts.) to Wissahickon Creek.
1832 Jun. 9 Completed from Philadelphia to Germantown. Cars hauled by horses.
1835 Aug. 15 Completed from Philadelphia to Norristown.

There is a good deal of mystery surrounding the history of some of the early locomotives on this road; some disappeared without leaving a trace and others were of uncertain origin.

PENNSYLVANIA	2-2-0	11x16 60″	1831	Stephenson #5	B

Arrived during the winter of 1831-32 and used in construction service. It was thought to be unsatisfactory but really it was only too

slightly built for the rough service and poor tracks. Stephenson's records show the following notations:

(2) Newcastle and Frenchtown
(3) Allegheny Portage
(4) Tuscumbia, Courtland and Decatur

The reference to these roads probably indicated efforts to sell the engine to them, and the mention of the T. C. & D. was perhaps significant. Long and Norris are credited with a tank locomotive PENNSYLVANIA, built in 1833, but there is good reason to suppose that it was not a new locomotive but simply Stephenson's PENNSYLVANIA rebuilt. Even in the rebuilt form it was not liked and it was sold to the Tuscumbia, Courtland and Decatur Railroad for $5880.37 and was received by that road in February 1835. In 1836 it was reported to out of service and used as a stationary engine but there are indications that subsequently it was rebuilt as a 4-4-0 type.

BLACK HAWK 2-2-0 54″ 1832 Long and Norris

Unsatisfactory and retired in 1834.

PHILADELPHIA 2-2-0 10x18 54″ 1832 Stephenson #32 B

The American Rail Road Journal of May 12, 1832 reported this locomotive en route from England but there is no record of it ever having been used on the road. Probably because of the partial failure of the PENNSYLVANIA and to the opposition of Baldwin and other local builders, the company refused to accept this PHILADELPHIA. In 1835, Stephenson sent an otherwise unknown locomotive to the Portsmouth and Roanoke R. R., on trial, and there is good reason to believe it was the missing PHILADELPHIA.

IRONSIDES 2-2-0 9½x18 54″ 1832 Baldwin #1 BUV

This was the first successful locomotive on the road but it was not an original design. Except that it was much more strongly built to meet local conditions, it was an almost exact copy of Stephenson's PENNSYLVANIA. Even the name suggests a gentle gibe at the overseas rival.

PHILADELPHIA 0-4-0 (?) 1832 West Point Foundry

Mentioned in the American Rail Road Journal of May 12, 1832. Probably it was similar to the WEST POINT on the South Carolina Canal and Railroad Company or the DEWITT CLINTON on the Mohawk and Hudson Railroad. It disappeared before 1838.

SAMPSON 1832 Young Newcastle UV
PENNSYLVANIA 2-2-0T 10x18 54″ 1833 Long and Norris

This may have been a new locomotive but it is more likely that it was a rebuild of the Stephenson PENNSYLVANIA, as mentioned above.

VELOCITY 4-2-0 (?) 1834 West Point Foundry BUV

There is a remote possibility that this was the same locomotive as the PHILADELPHIA of 1832.

STAR	4-2-0		1834	Norris	UV
EAGLE	4-2-0		1835	Baldwin #17	BUV
ARROW	4-2-0		1835	Young	UV
ARABIAN	4-2-0		1836	Baldwin #31	BUV
ECLIPSE	4-2-0	11¼x16	1837	Baldwin #72	B
REINDEER	4-2-0		1837	Baldwin #76	BUV
CAMPBELL	4-4-0	14x16 54"	1837	Campbell & Brooks	
FORT ERIE	4-2-0		1839	Baldwin #136	B

For some reason the ECLIPSE and the CAMPBELL were not mentioned in the U. S. Treasury Report of 1838 nor in von Gerstner's list of 1839, although the ECLIPSE was in service on the road until 1857. Probably they were being rebuilt at the time and were temporarily out of service.

The FORT ERIE was not mentioned by von Gerstner but it may have been received by the road after his visit.

In connection with the IRONSIDES, the first locomotive built by Matthias W. Baldwin, it might be stated here that Mr. Franklin Peale, then proprietor of the Philadelphia Museum, requested Mr. Baldwin to construct a miniature locomotive for exhibition purposes in his museum. With the aid of the imperfect published descriptions and sketches of the locomotives that took part in the Rainhill competition in England, Mr. Baldwin undertook the task and the miniature locomotive on April, 25th, 1831 was placed on a circular track made of pine boards covered with hoop iron, and put in motion in the rooms of the Museum. Two small cars, each seating four passengers, were attached and the novel spectacle attracted many a visitor. Both anthracite and pine-knot coal were used as fuel and the exhaust steam was discharged into the chimney to aid the draught. What the actual appearance of this locomotive was seems to be unknown at this late day.

PHILADELPHIA, WILMINGTON AND BALTIMORE RAILROAD

Philadelphia and Wilmington Railroad			
	Philadelphia, Pa.	Wilmington, Del.	28 miles
	Strap iron rails	2¼"x⅝"	
Wilmington and Susquehanna Railroad			
	Wilmington, Del.	Havre de Grace, Md.	34
	T rails	42#	
Baltimore and Port Deposit Railroad			
	Havre de Grace, Md.	Baltimore, Md.	36
	Bar iron rails	2½"x1¾"	

Gauge 4' 8½" (?)

1836		Incorporated.
1838	Feb. 5	Amalgamation of the three companies under the name Philadelphia, Wilmington and Baltimore Railroad.
1838	Nov. 1	Through service from Philadelphia to Baltimore.

WILMINGTON	0-4-0	11x18 54″	1845	Bury #38	BUV
re JOHN BULL		Scrapped	1852.		
DELAWARE	4-2-0		1836	Baldwin #44	BUV
MARYLAND	4-2-0	10½x16 56″	1836	Baldwin #55	BUV
CHRISTIANA	4-2-0		1836	Baldwin #56	B

Presumably this locomotive was destroyed in 1837 or 1838 and the name given to a new engine.

SUSQUEHANNA	2-2-0	10½x18 50″	1836	Locks & Canals	UV
BRANDYWINE	4-2-0	12½x21 63″	1837	Baldwin #89	BUV
GEN. WASHINGTON	4-2-0		1837	Norris	BUV

Rebuilt by the P. W. & B. R. R. as a three cylinder locomotive, with cylinders 10½&15x19.

MATTHEW NEWKIRK	4-2-0		1837	Norris	BUV
NICHOLAS BIDDLE	4-2-0		1837	Norris	BUV
LADY WASHINGTON	4-2-0		1837	Norris	BUV
NAPOLEON	4-2-0		1837	Norris	BUV
BALTIMORE	4-2-0	13x24 54″	1837	Norris	BUV
LEWIS BRANTZ	4-2-0	10½x18 50″	1837	Norris	BUV
CHRISTIANA	4-2-0	12x26 72″	1838	Baldwin #100	BUV

Rebuilt by Elliott and Huston.

NEWCASTLE	4-2-0	13x20 60″	1838	Newcastle	UV
LAFAYETTE	4-2-0	10½x18 50″	1840	Norris	B
KENTUCKY	4-2-0	10½x18 50″	1840	Norris	B

R&LHS Bulletins 18 and 21.

PONTCHARTRAIN RAILROAD

New Orleans, La. Milnesburg 4.5 miles

Original gauge 4′ 8½″
T rails 24 and 56 lbs.

1830 Jan. 20 Incorporated.
1831 Apr. 23 Completed and worked with horses.
1832 Aug. 15 Opened for reguar service with locomotive. Subsequently acquired by the Louisville and Nashville Railroad.
1932 Mar. 15 Line abandoned.

SHIELDS 1832 John Shields, Cincinnati

This locomotive did not work successfully but the company bought it to use as a stationary engine.

PONTCHARTRAIN	2-2-0	10x18 60″	1832	Rothwell #2	BUV
CREOLE	0-4-0	11x18 54″	1834	Bury #11	BUV
FULTON	0-4-0(?)		1834	Hicks	BUV
ORLEANS	0-4-0	12½x20 63″	1836	Bury #40	BUV

PORTSMOUTH AND ROANOKE RAILROAD

Portsmouth, Va. Weldon, N. C. 80 miles

Original gauge 4′ 8½″
Strap iron rails 2¼″x½″

1832 Mar. Incorporated.
1837 Dec. Completed.

Six locomotives on this road had numbers only but authorities differ and it is impossible to determine which numbers were correct. In the following list, the prefix U- indicates the number shown in the U. S. Treasury List of 1838; the prefix V- shows the number in von Gerstner's lists; and B- indicates the number shown in the Builder's records.

JOHN BARNETT		2-2-0	(?)	1835	American Steam Carriage Co.	
Scrapped in 1837.						
U-3	V-5 B-5	0-4-0		1835	Bury #56	BCUV
Scrapped by 1848.						
U-1	V-1	2-2-0	10x18 54″		Stephenson	CUV

This locomotive was of uncertain origin; it was offered for trial by its maker and was bought. There is good reason to believe that it was the PHILADELPHIA, builder's no. 32, built in 1832 for the Philadelphia, Germantown and Norristown Railroad. Scrapped by 1848.

U-2	V-2 B-3	4-2-0	10x15 54″	1834	Stephenson #106	BCUV
Scrapped by 1848.						
U-4	V-3 B-4	0-4-0	10x16 54″	1836	Stephenson #125	BCUV
Scrapped by 1848.						
U-5	V-4 B-6	2-4-0	15x18 54″	1836	Stephenson #154	BCUV
Scrapped by 1848.						
U-6	V-6	4-2-0		1838	Norris	CUV
EMMERSON		4-2-0		1839	Norris	C
JOYNER		4-2-0		1839	Norris	C
REMUS		4-2-0		1839	Norris	C
ROMULUS		4-2-0		1839	Norris	C
ROANOKE		4-4-0		1840	Norris	C

Some time between 1845 and 1850 the road acquired a small 10 ton locomotive which it named the PORTSMOUTH. It was reported built by Tayleur, of England, but positive identification is not possible. However, there is a reasonable presumption that it was either the FIREFLY or the RED ROVER bought from the defunct Camden and Woodbury R. R.

RENSSALAER AND SARATOGA RAILROAD

Troy, N. Y. Ballston Spa. 25.26 miles

Original gauge 4′ 9″ (?)
Strap iron rails

1832 Apr. 14 Incorporated to build from Troy to a connection with the Saratoga and Schenectady Railroad at Ballston Spa.
1835 Aug. 18 Completed from Ballston to Waterford
1835 Oct. 6 Completed from Troy to Ballston

CHAMPLAIN	4-2-0	10½x16	54″	1835	Baldwin #12	BV
ERIE	4-2-0	10½x16	54″	1835	Baldwin #13	BV

One retired in 1849 and the other in 1852.

Weight	20,000 lbs.
Boiler, diameter	40″
Tubes, no.	116
Tubes, diameter	1¾″
T. E.	2750

RICHMOND AND PETERSBURG RAILROAD

Richmond, Va. Petersburg 22.5 miles

Original gauge 5′ 0″
Strap iron rails 2″x½″

1836 Mar. 14 Incorporated
1838 Jan. 17 Completed

JOHN RANDOLPH	2-2-0	13x18	66″	1837	Bury #42	BUV
SHEPPARD	2-2-0	10x16	54″	1837	Bury #46	BUV
STAFFORD	0-4-0	10½x16	42″	1837	Bury #47	BUV
PATRICK HENRY	0-4-0	10x16	54″	1837	Bury #48	BUV
ROBERT MORRIS	0-4-0	10x18	54″	1837	Rothwell #23	BUV
OLIVER EVANS	0-4-0	10x18	54″	1837	Rothwell #24	BUV
J. H. HOPKINS	0-4-0	10x16	48″	1838	Rothwell #34	B
PHOENIX	0-4-0	10x16	48″	1838	Rothwell #35	B

The Robert Morris and the Oliver Evans were owned by the Richmond, Fredericksburg and Potomac R. R. and were loaned or rented to the Richmond and Petersburg R. R.

The J. H. Hopkins and the Phoenix were still in service in 1853.

RICHMOND, FREDERICKSBURG AND POTOMAC RAILROAD

Richmond, Va. Alexandria 75.5 miles
Louisa Railroad
Taylorsville Fredericks Hall 22.5

Original gauge 5′ 0″
Strap iron rails 2¼″x½″

1834 Feb. 25 Incorporation.
1836 Feb. 13 Completed from Richmond to South Ann River.
1836 Feb. 18 Louisa Railroad incorporated.
1837 Jan. 23 Completed from Richmond to a point on the Potomac River, north-east of Fredericksburg.
1837 Dec. 20 Louisa Railroad completed. Operated by the R. F. & P.

AUGUSTA	2-2-0	11x16 60″	1833	Bury #19	BUV
FREDERICKSBURG	2-2-0	11x16 60″	1833	Bury #20	BUV
RICHMOND	0-4-0	10x15 54″	1834	Stephenson #103	BUV
AMERICAN			1836	Newcastle	UV
POTOMAC			1836	Hicks	BUV
ROANOKE	0-4-0	11x16 54″	1832	Bury #7	BUV

Bought in 1836 from the Petersburg R. R.

LOUISA			1837	Hicks	BUV
ROBERT MORRIS	0-4-0	10x18 54″	1837	Rothwell #23	BUV
OLIVER EVANS	0-4-0	10x18 54″	1837	Rothwell #24	BUV

During 1838 and 1839, the ROBERT MORRIS and the OLIVER EVANS were loaned or rented to the Richmond and Petersburg Railroad.

WASHINGTON			1837	Smith	
JEFFERSON	2-2-2	11x18 60″	1837	Summers, Groves & Day	BUV

For a long time it was supposed that Summers, Groves and Day were agents and that the JEFFERSON was built elsewhere but rail historians in Great Britain recently established the fact that this firm actually built some locomotives, including the JEFFERSON. The company still exists as Day, Summers & Co., Ltd., North Iron Works, Southampton, but it has no records of its early locomotive building.

VIRGINIA	4-2-0		1838	Norris	BUV
FLORIDA	4-2-0		1838	Norris	BUV
JOHN A. LANCASTER	4-4-0	11x20	1840	Norris	B

SARATOGA AND SCHENECTADY RAILROAD

Schenectady, N. Y. Saratoga 21.5 miles

Original gauge 4′ 9″
Strap iron rails

1831 Jan. 8 Petition to the New York State Legislature for charter.
1831 Feb. 16 Incorporated.
1831 Aug. 20 Construction started.
1832 Jul. 12 Completed from Schenectady to Ballston.
1833 Apr. 15 Completed from Schenectady to Saratoga.

DAVY CROCKETT	4-2-0	9x14 53″	1833	Stephenson #42	BUV
FIREFLY	4-2-0	9x14 54″	1834	Stephenson #75	BUV

	Davy Crockett	Firefly
Shipped	Apr. 6 1833	
Received	Jun. 1833	Jun. 1834
First run	Jul. 2 1833	Jul. 1834
Boiler, diameter	2′ 6″	2′ 6″
Boiler, length	6′ 0¾″	5′ 11¼″
Tubes, no.	66	66
Tubes, diameter	1⅝″	1⅝″
Firebox, length	1′ 10¾″	2′ 0½″
Firebox, width	2′ 9¾″	2′ 9½″
Grate area	5.32 sq. ft.	5.5 sq. ft.
Heating surface	178.62	177.68
Stack diameter	12½″	11½″
Truck wheels	32″	32½″

SOUTH CAROLINA CANAL AND RAILROAD COMPANY

Charleston, S. C.	Hamburg	136 miles
Branchville	Columbia	66
Original gauge	5′ 0″	
Bar rails	25½ lbs.	

1827	Dec. 6	Meeting at Charleston to promote a railroad to Augusta, Georgia, on the Savannah River, and branches to Columbia and Camden.
1827	Dec. 19	Incorporation of the South Carolina Canal and Railroad Company.
1828	May 12	Company organized.
1829	Sept.	Horatio Allen appointed chief engineer.
1829	Oct.	E. L. Miller, a prominent merchant of Charleston and protagonist of the railroad, attended the Rainhill Trials on the Liverpool and Manchester Railway.
1830	Jan. 9	Construction started.
1830	Feb.	E. L. Miller exhibited in Charleston a model locomotive which he apparently brought back with him from England.
1830	Mar.	E. L. Miller offered to finance personally the building of a locomotive and the company accepted the offer.
1830	Oct. 22	The locomotive BEST FRIEND OF CHARLESTON arrived in Charleston.
1830	Dec. 14-15	Locomotive tested.
1830	Dec. 24	The Company purchased the BEST FRIEND OF CHARLESTON from E. L. Miller.
1832		First railroad in America to carry mail.
1832	Nov. 7	Completed from Charleston to Branchville, 62 miles.
1833	Oct. 1	Completed from Charleston to Hamburg.
1836		Incorporation of the Louisville, Cincinnati and Charleston Railroad.
1837	Nov. 1	Through service from Charleston to Atlanta, Ga., in connection with the Georgia Railroad and Banking Co., 293 miles. Then the longest continuous railroad line in the world.
1840	Nov. 1	Louisville, Cincinnati and Charleston R. R. completed from Branchville to Columbia.
1844		South Carolina Canal and Railroad Company and the Louisville, Cincinnati and Charleston Railroad consolidated as the South Carolina Railroad.

The U. S. Treasury Report of 1838 listed 27 locomotives which were in service on the road at that time and they are identified in the following roster by the code letter "U". They were:

Native	Sumter	Edisto
Georgia	Marion	Barnwell
Augusta	Ohio	Wm. Penn
E. L. Miller	H. Shultz	Alexandria
Wm. Aiken	Tennessee	Moultrie
E. Horry	Washington	Vulcan
Cincinnati	Lafayette	Charleston
Allen	Franklin	Branchville
Kentucky	Philadelphia	Reading

But there was a footnote in the Report which stated, "There have been fifteen other locomotives, built in the United States and England, which

have been cut up and used as materials for repairing others, after having been on the road from one to three years."

Heretofore, efforts to identify all of the missing 15 locomotives have been unsuccessful—there were always a few short—and probably many rail historians came to the conclusion that 15 was only an approximate quantity. This did not seem satisfactory and, based on the premise that the Report meant precisely what it said, a new examination of source material was made and several important clues were found.

The semi-annual report of the railroad, dated October 31st, 1834, listed 12 locomotives then in service and 3 others being converted, and these are identified in the roster by the code letter "S". The report also mentioned two lots of locomotives which had been ordered but not yet received:

> "Order for six engines forwarded on the 4th Inst., (10-4-34) to Wm. C. Molyneaux, of Liverpool."

These, of course, were the 4-2-0 type, three built by Tayleur and three by Stephenson, and delivered in 1835.

> "Four others ordered from England on 3rd March (1834) last, expected soon to arrive."

These four presumably arrived in the late autumn of 1834 and were never identified, probably because the order was placed with an agent and not directly with the builders.

Another clue was found in J. G. H. Warren's, "A Century of Locomotive Building by Robert Stephenson & Co.," page 77. The Stephensons were partners in the firm of Tayleur & Co., (Vulcan Foundry) and often, when the Stephenson works at Newcastle had more work than could be handled, orders were shared with Tayleur & Co., as was the case with the six 4-2-0 engines, built in 1835. In the order book at the Newcastle works there is a note concerning one of these transfers:

> "April 5th 1834 Two engines for South Carolina"

This obviously referred to part of the order for four mentioned in the company report and if we assume that two were built by Stephenson and two by Tayleur, we will not be far from the truth. We can also surmise that when they were received by the road they were of some unsuitable wheel arrangement, perhaps 2-2-0 or 0-4-0. In 1835, the road had seven 4-2-0 type locomotives which had quickly demonstrated their superiority and the company decided to turn the four engines over to local machine shops for conversion. Since the names of these locomotives are not definitely known, they are listed as Xa, Xb, Xc and Xd but there is good reason to suppose that their real names were Washington, Lafayette, Franklin and Moultrie, which appear elsewhere in the roster.

Including these four and Roger's EXPERIMENT, it is a simple matter to account for the fifteen locomotives mentioned in the U. S. Report:

Phoenix	Edisto	Xb
West Point	Hamburg	Xc
South Carolina	Edgefield	Xd
Charleston	Columbia	E. J. Ravenal
Barnwell	Xa	Experiment

They are identified in the following roster by the code letter "X".

The 2-2-2-2 type "Jasons" seem to have been complete failures and most of them were cut in half and rebuilt as conventional typ The company report for 1834 states, "Arrangements are in progress here to convert the boilers and such other parts as are suitable and good of the CHARLESTON, BARNWELL and SOUTH CAROLINA into Engines, upon four or six wheels. The Board, after much and minute investigation, being of the opinion that six durable engines of considerable power can be constructed out of the materials, which otherwise would be useless and lost." Just why the EDISTO was not rebuilt is not clear but it was considered to be the best of the articulated type and perhaps it was kept unchanged.

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BEST FRIEND OF CHARLESTON re PHOENIX 0-4-0 6x16 54" 1830 West Point Foundry SVX

Boiler exploded in June 1831; immediately rebuilt; changed from inside to outside connected; new boiler; renamed. Scrapped before 1838.

WEST POINT re CONSTITUTION 0-4-0 6x16 54" 1831 West Point Foundry SVX

Rebuilt in 1833; changed from inside to outside connected. Scrapped before 1838.

SOUTH CAROLINA 2-2-2-2 1832 West Point Foundry SVX

Boiler exploded, Dec. 27, 1832; rebuilt, April 1833, probably as a 0-4-0 type. Scrapped before 1838.

CHARLESTON 2-2-2-2 1833 West Point Foundry SVX

Rebuilt in 1835, probably as a 0-4-0 type. Possibly again rebuilt in 1837 by McLeish and Smith.

BARNWELL 2-2-2-2 1833 West Point Foundry SVX

Rebuilt in 1834 probably as a 0-4-0 type. Scrapped before 1838.

EDISTO 2-2-2-2 1833 West Point Foundry SVX

Scrapped before 1838 but probably some parts were used to build other engines.

HAMBURG 0-4-0 1833 West Point Foundry SVX

Scrapped before 1838 but probably some parts were used to build other engines.

NATIVE 1833 Eason & Dotterer SUV

Supposed to have been a new locomotive but probably parts of older engines were used.

GEORGIA 0-4-0 12½x20 54" 1833 Bury #16 BSUV

Scrapped before 1843.

AUGUSTA 0-4-0 12½x20 54" 1833 Bury #17 BSUV

Scrapped before 1843.

EDGEFIELD 0-4-0 10x16 51" 1833 Stephenson #54 BSVX

Scrapped 1838. Parts used for new engine.

E. L. MILLER 4-2-0 10x16 54" 1834 Baldwin #2 BCSUV
re EDGEFIELD

Renamed in 1842 and scrapped in 1850.

COLUMBIA 2-2-0 1834 Fenton, Murray CSXV

Taken out of service in 1837; rebuilt in 1842 and scrapped in 1851.

WILLIAM AIKEN 0-4-0 10x16 54" 1834 Stephenson #87 BCSUV
re CAMDEN

1842 rebuilt (4-2-0 ?) and renamed.

E. HORRY 0-4-0 10x16 60" 10/1834 Stephenson #99 BSUV

Scrapped before 1843.

Xa	0-4-0 ?	1834 Stephenson	BCX
Xb	0-4-0 ?	1834 Stephenson	BCX
Xc	0-4-0 ?	1834 Tayleur	BCX
Xd	0-4-0 ?	1834 Tayleur	BCX

Immediately rebuilt, as 4-2-0 type, by local builders. Probably the same engines as the MOULTRIE, FRANKLIN, LAFAYETTE and WASHINGTON.

CINCINNATI 4-2-0 10x16 54" 1835 Tayleur #20 BCUV
re ALABAMA

Renamed 1842 and scrapped in 1850.

ALLEN 4-2-0 10x16 54" 1835 Tayleur #21 BUV
re HORATIO

Scrapped in 1842.

KENTUCKY 4-2-0 10x16 54" 1835 Tayleur #22 BCUV
re TENNESSEE

Scrapped in 1844.

SUMTER 4-2-0 10½x16 54" 6/1835 Stephenson #114 BCUV

Scrapped in 1851.

MARION 4-2-0 10½x16 54" 7/1835 Stephenson #115 BCUV

Scrapped in 1851.

OHIO 4-2-0 10½x16 54″ 8/1835 Stephenson #116 BCUV

Scrapped in 1851.

H. SHULTZ 2-2-0 11x16 54″ 1835 Rothwell #7 BCUV

Rebuilt 4-2-0; scrapped in 1844.

TENNESSEE 2-2-0 9½x18 54″ 1836 Rothwell #8 BCUV

Scrapped in 1843.

WASHINGTON 4-2-0 ? 1836 Eason & Dotterer CUV

Probably an older locomotive rebuilt.

LAFAYETTE 4-2-0 ? 1836 Eason & Dotterer CUV

Probably an older locomotive rebuilt. Had a new boiler in 1843. Scrapped 1849.

FRANKLIN 4-2-0 ? 1836 Dotterer CUV

Probably an older locomotive rebuilt.

PHILADELPHIA 4-2-0 1836 Baldwin #24 BCUV

Scrapped in 1843.

E. J. RAVENEL 4-2-0 1836 Baldwin #23 BX

Probably rebuilt by Baldwin in 1838-39 and returned as the JOHN RAVENEL.

BARNWELL 4-2-0 1837 Baldwin #94 BCUV

Scrapped in 1850.

WILLIAM PENN 1837 Smith UV

Gone by 1843.

ALEXANDRIA 1837 Smith UV

Gone by 1843.

MOULTRIE 4-2-0 ? 1837 Dotterer CUV

Probably an older locomotive rebuilt.

VULCAN 4-2-0 ? 1837 McLeish & Smith CUV

Possibly built from half of the old articulated engine EDISTO.

CHARLESTON 4-2-0 ? 1837 McLeish & Smith CUV

Possibly built from half of the old articulated engine CHARLESTON.

EXPERIMENT 4-2-0 1838 Rogers #4 BX

Not accepted by the road and subsequently sold by the builder to the Northern Cross R. R. in Illinois.

BRANCHVILLE	4-2-0	1838	Eason & Dotterer	CUV

Built at Reading, Pa. Rebuilt 1843.

READING	4-2-0	1838	Eason & Dotterer	UV

Built at Reading, Pa. Gone by 1843.

LINE STREET	4-2-0	1838	Eason & Dotterer	CV

Rebuilt in 1843. Scrapped in 1848.

T. F. TUPPER	4-2-0	1839	Baldwin #126	BC
ROBERT Y. HAYNE	4-2-0	1839	Baldwin #132	BC

Scrapped in 1850.

JOHN RAVENEL	4-2-0	1839	Baldwin	C

This locomotive does not appear in the Baldwin records and is believed to have been a rebuild of the E. J. RAVENEL, Baldwin #23. Scrapped in 1850.

BUENAVISTA	4-2-0	1839	Baldwin	C

This locomotive does not appear in the Baldwin records and cannot be identified. Possibly it is Baldwin #73, the TUSCARORA built for the Philadelphia and Columbia R. R. but not delivered there. Boiler exploded April 9, 1848.

ORANGEBURG	4-2-0	1842	S. C. C. & R. R. Co.

First locomotive built by the railroad, possibly with parts of older engines.

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EDITORIAL COMMENT:

There is still something of a mystery concerning some of the locomotives on this road. The conjectures of the author relative to the four English locomotives built in 1834 (Xa-d) is borne out, not only in the orders placed by the company but by the fact that on October 4, 1834, the road listed the names of the twelve locomotives they owned and, on October 5, 1835, they stated they "will have 22 locomotives." In order to arrive at this total, the two Stephenson and two Tayleur engines (Xa-d) must be included in this total.

On the other side the Stephenson records do not indicate their construction. On April 10th, 1835, the railroad had two contracts outstanding: 6 locomotives being constructed by R. Stephenson & Son for $31,800.00 and two under construction by Eason & Dotterer for $11,500.00. This would indicate the Eason & Dotterer locomotives built that year were new locomotives.

To add still further to the confusion, President Tupper, in 1843 reported that from 1830 to 1837 thirty-five engines were ordered—seven from New York, fourteen from England and three from Philadel-

phia together with several additional engines built in the shops of the company. The fourteen locomotives built in England agree with the builder's records but it does not include the unknowns (Xa-d) which must be included to agree with their October 5, 1835 statement.

Through the kindness of our member—Harold S. Walker, a search through the files of the "Charleston Courier" brought forth considerable information but the semi-annual reports that appeared of this road in that paper seem to have been discontinued in 1835, the year that would determine whether the "unknowns" were delivered and rebuilt by the road or whether the four engines ordered on March 3rd, 1834 were increased to six on October 4th of that year and only six engines were delivered on these orders. Even this assumption would not coincide with their own statement of October 5, 1835 and the U. S. Report of 1838. Until further information is uncovered, this portion of this roster will remain a mystery.

COL. JOHN STEVENS

Hoboken, N. J.

1825 Experimental STEAM WAGGON.

Tested on circular track on The Green, Castle Point, Hoboken; where city hall is now.

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SUGAR LOAF RAILROAD

Sugar Loaf, Pa. Hazleton R. R. 2 miles

Original gauge 4' 8½"
Strap iron rails 2¼"x⅝"

1839 Completed from Sugar Loaf to a connection with the Hazleton Railroad near Hazleton.

AJAX 4-4-0 1839 Eastwick & Harrison V

Mauch Chunk Courier—June 15, 1839

> "On board a boat at this place are two new locomotives for the lines feeding the Lehigh Navigation, the HERCULES for the Hazleton Coal Co., and the AJAX for the Sugar Loaf Co."

Lehigh Coal & Navigation Co., Annual Report—Jan. 13, 1840, p. 37

> "Within the year, they (the Sugar Loaf Coal Co.) completed their railroad and placed on it two locomotives."

The second locomotive has not been identified but is believed to have been rented from either the Hazleton Coal Co., or the Beaver Meadow Railroad.

SYRACUSE AND UTICA RAILROAD

Syracuse, N. Y. Utica 58 miles

Original gauge 4′ 9″

1836 May 11 Incorporated.
1839 July 3 Completed.

ONEIDA	4-2-0	1840	Rogers, K & G #22	B
ONONDAGA	4-2-0	1840	Rogers, K & G #25	B

TALLAHASSE RAILROAD

Tallahassee, Fla. Port Leon 22 miles

Original gauge 4′ 8½″
Strap iron rails 2¼″x½″

1834 Feb. 10 Incorporated.
1834 Construction started.
1836 Completed from Tallahassee to Port Leon. Cars hauled by horses.
1837 Dec. First locomotive acquired.
1843 St. Marks to Port Leon abandoned.

?	4-2-0 (?)	1837	Young, Newcastle	
??	4-2-0 (?)	1838	Young, Newcastle	

One locomotive ran off wharf at St. Marks and was lost in the bay.

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TAUNTON BRANCH RAILROAD

Taunton, Mass. Mansfield 11 miles

Original gauge 4′ 8½″

1835 Apr. 7 Incorporated.
1836 Aug. 8 Completed.

TAUNTON	2-2-0	1836	Locks & Canals	BUV
NEW BEDFORD	2-2-0	1837	Locks & Canals	BUV
ROCKET	2-2-0	1839	Locks & Canals	B
METEOR	2-2-0	1840	Locks & Canals	B

TIOGA RAIL ROAD

Corning, N. Y. Blossburg, Pa. 25.75 miles

Original gauge 4′ 8½″ (?)
Strap iron rails 2¼″x¾″

1828 Apr. 9 The state of New York chartered the Tioga Coal, Iron, Mining and Manufacturing Company to build a canal from Corning, N. Y., to the state line.
1828 Apr. 12 The state of Pennsylvania chartered the Tioga Navigation Company to build a canal from Blossburg, Pa., to state line, near Lawrenceville.
1833 Authorized to build railroad.
1839 Railroad completed.

CHEMUNG		1839	Albany Iron Works
TIOGA re BENJAMIN	4-2-0	1839	Baldwin #131
CANISTEO re JONATHON	4-2-0	1840	Baldwin #159

TONAWANDA RAILROAD

Rochester, N. Y. Batavia 31.5 miles

Original gauge 4' 9" (?)
Strap iron rails

1832 Apr. 24 Incorporated.
1837 May 8 Completed.

No. 1		4-2-0	1836	Baldwin #50	BU
No. 2		4-2-0	1836	Baldwin #51	BU
No. 3	BATAVIA	4-2-0	1838	Rogers, K & G. #5	B

TUSCUMBIA, COURTLAND AND DECATUR RAILROAD

Tuscumbia, Ala. Decatur 45.5 miles
Original gauge 4' 8½"

1830 Jan. 15 Incorporation of the Tuscumbia Railroad to build a line from Tuscumbia to the Tennessee River, 2 miles.
1832 Jan. 13 Incorporation of the Tuscumbia, Courtland and Decatur Railroad to build a portage line around the Mussel Shoals in the Tennessee River.
1832 Jun. 12 Line completed from Tuscumbia to the river.
1834 Dec. 15 Line completed from Tuscumbia to Decatur.

FULTON	0-4-0	11x16 54"	1833	Bury #15	BCV

Received June 1st, 1834.

PENNSYLVANIA	2-2-0T	10x18 54"	1833	Stephenson #5	BCV

Bought from the Philadelphia, Germantown and Norristown Railroad for $5880.37 and received in May 1835.

COMET	0-4-0	10x20	1835	West Point	BCV

Received in June 1835.

TRIUMPH	4-2-0		1835	Baldwin #30	BVC

Received June 1st, 1836.

An early newspaper account stated that the first locomotive was the W. W. GARTH, placed in service in February 1835 but, as it was not successful, horses were used until two new engines were received in July 1836. This statement, however, is open to question since it ignored the FULTON which the Report of 1836 stated "she has been a useful engine." Apparently the company intended to give the name W. W. GARTH to the PENNSYLVANIA and perhaps did so for a short time but when it was found that the engine did not come up to expectations, the idea was dropped. Possibly Mr. Garth objected to having his name on an unsuccessful engine.

The PENNSYLVANIA was built originally for the Philadelphia, Germantown and Norristown Railroad but it was not liked on that road and in 1833 Long and Norris rebuilt it as a 2-2-0 tank engine. This led to it being listed as a Norris but it is more correct to ascribe it to

the original builder. There is a note in the Stephenson records stating that it was resold to the Tuscumbia, Courtland and Decatur Railroad. In 1836 it was being used as a stationary engine but the company was planning to rebuild it as a 4-4-0 type and presumably did so.

UTICA AND SCHENECTADY RAILROAD

Schenectady, N. Y. Utica 79 miles

Original gauge 4′ 9″

1833 Apr. 29 Incorporated.
1834 Sept. Construction started.
1836 Aug. 1 Completed.

No. 1	4-2-0	12x16	1836	Baldwin #28	BUV
2	4-2-0	12x16	1836	Baldwin #29	BUV
3	4-2-0	12x16	1836	Baldwin #32	BUV
4	4-2-0	12x16	1836	Baldwin #33	BUV
5	4-2-0	12x16	1836	Baldwin #35	BUV
6	4-2-0	12x16	1836	Baldwin #36	BUV
7	4-2-0	12x16	1836	Baldwin #37	BUV
8	4-2-0	12x16	1836	Baldwin #38	BUV
9	4-2-0	12x16	1837	Baldwin #83	BUV
10	4-2-0	12x16	1837	Baldwin #85	BUV
11	4-2-0	12x16	1837	Baldwin #86	BUV
12	4-2-0	12x16	1837	Baldwin #95	BUV

In 1839, von Gerstner reported four of these engines were working on the Utica and Syracuse R. R.

Several years later, six of these engines were sold to the state of Michigan for the Central Railroad and in 1848 one of them was re-sold to the Galena and Chicago Union Railroad as no. 1, the PIONEER; builder's no. 37. Subsequently it was acquired by the Chicago and North-Western Railroad and it is still in existence.

Some authorities claim that the locomotive NOAH VIBBARD was built in 1840 for either the Utica and Schenectady Railroad or the Mohawk and Hudson Railroad (authorities differ on that point) and, consequently, it should be included in this roster but pictures of the engine suggest a much later date.

The New York State Report of 1856 shows that New York Central Railroad no. 11, assigned to the Schenectady and Syracuse Division (the former Utica and Schenectady Railroad), was named the NOAH VIBBARD and had been built that year in their Schenectady shops; 4-4-0, 16x20, 66″, 21 tons. The cab and some other features tend to confirm the probability of the later date but, on the other hand, the domed boiler was antiquated for 1856. A reasonable explanation is that the no. 11 of 1856 was just a reconstruction of the no. 11 of 1837.

VICKSBURG AND JACKSON RAILROAD

Vicksburg, Miss. Jackson 45 miles

Original gauge 4′ 8½″ (?)
T rails 42 lbs.

1833 Incorporation.
1836 Construction started.
1838 May 15 First trip by locomotive COMMERCIAL.
1838 Nov. 1 Regular service from Vicksburg to the Big Black River.
1840 Completed.

MAZEPPA re COMMERCIAL	4-2-0	11½x16	1836	Baldwin #48	BV

Renamed on arrival because the name MAZEPPA was given by the builder and had no local significance and because the railroad was owned by the Commercial and Railroad Bank of Vicksburg.

MISSISSIPPI	4-2-0	11½x16	1836	Baldwin #49	BV
VICKSBURG (?)	4-2-0		1839	Newcastle	V
WARREN	4-2-0		1839	Rogers #10	BV
JACKSON	4-2-0		1840	Baldwin #147	B
GREAT WESTERN	4-2-0		1840	Baldwin #157	B
CONHOCTON	4-2-0		1840	Baldwin #158	B

WEST FELICIANA RAILROAD

St. Francisville, La. (Bayou Sara) Woodville, Miss. 28 miles.

Original gauge 4′ 8½″ (?)
Strap iron rails 2¼″x⅝″

WOODVILLE	4-2-0	1836	Baldwin #43	BV
WEST FELICIANA (?)	4-2-0	1836	Baldwin #54	B

Believed sold elsewhere, possibly to the Alexandria and Cheneyville Railroad.

FELICIANA	4-2-0	1839	Baldwin #129	B

WESTERN RAILROAD

Worcester, Mass. Springfield 62.6 miles

Original gauge 4′ 8½″
T rails 55½#

1833 Mar. 15 Incorporation of the Western Railroad to build from Worcester westward to the New York state line.
1839 Oct. 1 Completed from Worcester to Springfield.

HAMPDEN	2-2-0	12x18 54″	1839	Locks and Canals	V

Sold in 1848.

BERKSHIRE	2-2-0	12x18 54″	1839	Locks and Canals	V

Sold in 1848.

HAMPSHIRE	2-2-0	12x18	54″	1839	Locks and Canals	V

Sold in 1848 to the Cheshire R. R. as the ROUGH AND READY.

WORCESTER	2-2-0	12x18	54″	1839	Locks and Canals	V

Sold in 1850.

SUFFOLK	2-2-0	12x18	54″	1839	Locks and Canals	V

Sold in 1852.

FRANKLIN	2-2-0	12x18	54″	1840	Locks and Canals

Sold in 1861.

MASSACHUSETTS	4-4-0	14x18	54″	1840	Locks and Canals

Sold in 1863. An early photograph of this locomotive is believed to have been the first 'engine picture.'

In 1839, von Gerstner reported 8 locomotives on the Western Railroad but available records show only five. Either he included three which were on order but had not been delivered or there were three others, now unknown and probably second hand.

WILLIAMSPORT AND ELMIRA RAILROAD

Williamsport, Pa. Elmira, N. Y. 67 miles

Original gauge 4′ 8½″
Strap iron rails 2¼″x¾″

1832 Jun. 9 Incorporated.
1838 Construction started.
1854 Sep. 9 Completed.

ROBERT RALSTON	4-2-0	1838	Norris	BV
LADY WASHINGTON	4-2-0	1839	Norris	B

WILMINGTON AND RALEIGH RAILROAD

Wilmington, N. C. Weldon 161 miles

Original gauge 5′ 0″
Strap iron rails 2″x⅝″

1834 Jan. Incorporated.
1840 Mar. 9 Completed.

WAYNE	2-4-0	15x18″	54″	1837	Stephenson #155	BUV
re BRUNSWICK						
NASH	2-4-0	15x18″	54″	1837	Stephenson #156	BUV
re CUMBERLAND						
HALIFAX				1838	D. I. Burr	UV
SAMSON				1838	D. I. Burr	UV
re HENRY CLAY						
GREENE				1838	D. I. Burr	UV
LENOIR	4-2-0			1839	Baldwin #120	BV
re J. C. CALHOUN						
JOHNSTON	4-2-0			1839	Baldwin #121	BV
EDGECOMBE	4-2-0			1839	Norris	BV

DUPLIN	4-2-0	1839	Norris	BV
BLADEN	4-2-0	1839	Norris	BV
NEW HANOVER	4-2-0	1840	Norris	B

It would seem that the earlier engines were rebuilt and that three of them were renamed. In 1839, the two Stephenson engines with the SAMSON and the GREENE were shipped to Wm. Norris of Philadelphia to be rebuilt and converted to the 4-2-0 type. They were probably returned in 1840. These three engines that were renamed, together with the LENOIR renamed J. C. CALHOUN all appear in the roster dated November, 1844.

R&LHS Bulletin 12, pp. 25.

WINCHESTER AND POTOMAC RAILROAD

Winchester, Va. Harper's Ferry 32 miles

Original gauge 4' 8½" (?)
Strap iron rails 2"x½"

1832 Incorporated.
1836 Mar. 14 Completed.

TENNESSEE		1835	Bury #36	BV
OLD DOMINION		1835	Bury #37	BV
LILY OF THE VALLEY		1835	Bury #39	BV
POCAHONTAS		1835	Bury #44	BV
FARMER	4-2-0	1838	Norris	BV

WRIGHTSVILLE, YORK AND GETTYSBURG RAILROAD

Wrightsville, Pa. York, Pa. 12 miles

1835 Incorporated.
1840 Apr. Completed.

HARRISBURG	2-2-2	12x18 60"	1836	Stephenson #146	B
WRIGHTSVILLE	2-2-2	12x18 60"	1836	Stephenson #147	B

Both rebuilt 4-4-0 type and still running in 1850.

Worth Reading

Compiled by

ELIZABETH O. CULLEN, *Librarian, Bureau of Railway Economics, Association of American Railroads, Washington 6, D. C.*

BOOKS AND PAMPHLETS

Adequacy of Transportation in Event of Mobilization—Statements before Armed Services Committee, U. S. House of Representatives, *July 16, 1959 by Leo A. Hoegh and Owen R. Jones, Office of Civil and Defense Mobilization.* Free on request to the Office, Washington 25, D. C.; *July 17, 1959 by Kenneth H. Tuggle, Interstate Commerce Commission.* Free on request to Rm. 1222, ICC Bldg., Washington 25, D. C.; *July 31, 1959 by Daniel P. Loomis, Association of American Railroads.* Free on request to AAR, Room 915, Transportation Bldg., Washington 6, D. C.

Alas, Babylon! by Pat Frank. 254 p. Philadelphia and New York, Lippincott. $3.50. A novel of how people survived in an area in Central Florida just missed by nuclear bombing, using courage, hands and ingenuity.

L'Année Ferroviare 1959. 285 p. Illus., Diagrams, Maps. Paris 8, France, Librairie Plon. price not stated. *Ch. V. Le Matériel Moteur* (Steam, Electric, Diesel in France and elsewhere). Ch. VI. *Le Matériel Remorqué* (freight and passenger cars including "piggyback").

Association of American Railroads—Its Organization and Activities —1959. Cover-title, 25 p. Free on request to the Association, Transportation Bldg., Washington 6, D. C.

Association of American Railroads Cooperative Research, by W. M. Keller, vice-president—Research. 15 proc. l. Free on request to AAR Research Dept., 3140 South Federal St., Chicago 16, Illinois. Presented at Festival of the Americas Program, August 11, 1959.

British Diesel Mines Locomotives. 1st Edition, 1959, compiled and published by Underground Mines Locomotives Group, Locomotive and Allied Manufacturers Association of Great Britain, Locomotive House, London, S. W. 1, England. 72 p. Illus. Price not given.

"Builders of the North"—a film showing construction by Canadian National Railways of new lines including lines into Kitimat, Lynn Lake and Chibougamau. For possible use of film, write W. R. Wright, Dir. of Public Relations, Canadian National Rys., Montreal, P. Q., Canada.

The Cable Cars of San Francisco, by Phil and Mike Palmer. 64 p. Illus Berkeley 10, Calif., Howell-North. $1.00.

Centralized Traffic Control, by Union Switch & Signal Div., Westinghouse Air Brake Co., Swissvale, Penna. 40 p. Illus., part in color. Its Bulletin No. 176. Free on request.

Combustion Engine Progress—A Survey of Recent Developments in the Design and Practice of Combustion Engines. 80 p. Illus. London, S. W. 1, England, Tothill Press, Ltd. concurrently with Inter-

national Combustion Engine Congress (CIMAC) at Wiesbaden, 1959. 10 shillings, 6 pence.

Diesel Locomotives—3rd Ed. 39 p. Illus. London, England, Ian Allen Ltd., in collaboration with Internal Combustion Group, Locomotive & Allied Manufacturers Association of Great Britain. 2 shillings, 6 pence.

End of An Era. 12 p. Illus. Hoaquim, Washington, Rayonier, Inc. Box 539. "The colorful, glamorous steam locomotives of the historic past deserve a final tribute. In an effort to preserve some record for the future of this passing transportation era, Rayonier, Inc. has published this booklet."

FAST MAIL—The First 75 Years—A History of the Burlington Railroad's Mail Service between Chicago and Council Bluffs-Omaha, by David P. Morgan. 38 p. Illus., Maps. Chicago 6, Ill., CB&Q RR Co. Price not stated. "Reprint rights granted upon request."

Fauquier County, Virginia 1759-1959. 335 p. Illus., Endpaper maps. Limited ed. Compiled by County Bicentennial Comm. and for sale by Clerk, Board of Supervisors, Fauquier County, Warrenton, Va. $4.25 postpaid. "Traces," Roads, Rappahannock Canal, and Manassas Gap and Southern Rys.

The First Transatlantic Cable, by Adele Gutman Nathan. 180 p. Illus. by Denver Gillen. Random House, N. Y., Landmark Book No. 88. $1.95.

Freight Car Supply—Hearings . . . on S. 1798 . . . S. 1811 . . . and S. 1812 . . . April 1-2, Kansas City, Kansas; June 8-9, Washington, D. C. before a Special Subcommittee on Freight Car Shortage, Comm. on Interstate and Foreign Commerce, U. S. Senate, 86th Cong., 1st Sess. 210 p. Washington 25, D. C., U. S. Government Printing Office. "Printed for the use of the Committee. . . ."

The Great Locomotive Chase on the Western & Atlantic Railroad April 12, 1862—The Thrilling Civil War Story of The General, Now America's Favorite Locomotive. 20 p., Illus. Maps. "Compliments of Louisville & Nashville Railroad, P. O. Box 1198, Louisville 1, Kentucky."

Innovations Being Made by Rail Carriers to Service Modern Agriculture, by Clair M. Roddewig, Address Aug. 12, 1959. 23 mimeo. 1. Chicago 3, Ill., Association of Western Rys., Public Relations Office, 105 W. Adams St. Free on request.

Library and Reference Facilities In the Area of the District of Columbia—Sixth (1959) Edition, compiled by Loan Division, Library of Congress. 174 p. For sale by Card Division, Library of Congress. $2.00. 244 libraries located and described. Subject Index, and Index of Librarians.

The Maine Two-Footers—The Story of the Two-Foot Gauge Railroads of Maine, by Linwood W. Moody. xvi, 213 p. Folded Map in pocket. Berkeley 10, Calif., Howell-North Press. $6.00.

The Manawatu Line—50th Anniversary of Purchase of Wellington and Manawatu Railway 1908—7 December 1958, compiled by T. A. McGavin, editor, The New Zealand Railway Observer. 38 p., Illus.,

Maps, Locomotive Rosters. Wellington C 1, New Zealand, The New Zealand Railway and Locomotives Historical Society, P. O. Box 5134. No price stated.

Mansions on Rails—The Folklore of the Private Railway Car, by Lucius Beebe. 382 p.; 6 color reproductions; 380 pages of rare photos. and illus. Berkeley 10, Calif., Howell-North. $10.00. Limited ed. $15.00.

Merchandise Service—Santa Fe—Information covering Through Overhead Less-Carload Merchandise Cars and Less-Car-Load Merchandise Service from Principal Transfer Points. 16 p. Illus., Map. Free on request to Santa Fe System Lines, Railway Exchange Building, 80 E. Jackson Blvd., Chicago 4, Ill.

Minnesota Railroad & Warehouse Commission. Decision . . . Approving Joint Truck-Rail Rates. St. Paul, Minn. August 5, 1959. St. Paul 1, Minn., State Office Building. 4 mimeo. 1. Price not stated.

Monorailroads—

Detroit, Mich.—*Report to the Mayor on the Rapid Transit Commission's Monorail Study for the City of Detroit,* by Henry P. Dowling. 9 proc. l., Exhibits A and B. Dated June 19, 1959. City of Detroit, Controller's Office, 1110 City-County Bldg., Detroit 26.

Disneyland, Los Angeles, Calif.—*Monorail Gets Its First Big Test in U. S.—Disneyland Unveils Monorail—first trains to operate on daily basis are now in service.* Railway Age, August 17, 1959, front cover illus. and p. 21.

New Orleans, La.—*Report on the Feasibility of a Monorail System for the New Orleans Metropolitan Area,* by Col. Sidney H. Bingham (Ret.), consulting engineer. 249 p., Illus., Diagrs., Tables, etc. New York, Col. Bingham, 109 E. 35th St., 16. No price stated.

Washington, D. C.—*An Area Wide System of Monorail Rapid Transit for Washington, D. C. and Its Environs as proposed by D. C. Transit System, Inc.* 5 p., Illus., Fold, Diagrs. and Map. Washington 7, D. C., Transportation Corporation of America, 3600 M St., N. W. Free on request. Discussed by O. Roy Chalk, President, in his ". . . business has never been better . . ."—address to New York Society of Security Analysts, July 15, 1959. 13, [2] 1. Free on request to Trans. Corp. of Am.

Washington, D. C.—*Monorailroads—List of books, periodical articles and other material added to BRE Library in 1958 and 1959 so far,* compiled by Elizabeth O. Cullen, Aug. 1, 1959. Free on request to BRE Library, AAR, Washington 6, D. C.

No Other Highway—film showing winter operating conditions in the Canadian Rockies on Canadian Pacific Railway. For possible use of film write D. B. Wallace, Manager, Public Relations, Canadian Pacific Railway, Montreal 3, P. Q., Canada.

The Phantom Brakeman and Other Railroad Stories, by Freeman Hubbard. 91 p. Illus., New York 36, N. Y., TAB Books, Inc., 33 West 42nd St., 25 cents. Try your local drug or paper-back bookstore.

Railroads in Essex County [Massachusetts] *A Century Ago,* by Charles J. Kennedy. Essex Institute Historical Collections—Centennial Issue, April 1959.

Railroads—Trains—Operation 1831-1958—Reference List, compiled by Helen R. Rowland, reference assistant. 126 proc. l. Dated March 1959. Washington 6, D. C., Bureau of Railway Economics Library, AAR. Free on request.

The St. Lawrence Seaway, by Lionel Chevrier. 174 p. incl. Maps, Pictures. 174 p. New York, St. Martin's Press; Canada, Macmillan of Canada. $4.50.

Sampling in Railroad Accounting. Report by Special Committee for Simplification of Interroad Clerical Work, assisted by Operations Research Group, Case Institute of Technology, May 1, 1959. 16 p. Free on request to AAR Finance, Accounting, Taxation and Valuation Dept., Transportation Building, Washington 6, D. C.

Status and Projection of OCDM Transportation Program. Part III in Defense Production Act Progress Report No. 43 by Director, Office of Civil and Defense Mobilization, June 24, 1959, pp. 19-24. Washington 25, D. C. U. S. Govt. Print. Off. "Printed for the use of the Joint Committee on Defense Production," 80th Cong., 1st Sess.

Straddling the Isthmus of Tehuantepec, by Edward B. Glick. v, 48 p. Gainesville, Fla., University of Florida Press—The Latin American Monograph Series No. 6, 1959. Free on request.

Sudan Railways—Annual Report for the period from 1st July, 1956 to 30th June 1957. iv, 107 p. Folded map in pocket. Signed: Mohammed El Fadl., Gen. Mgr. Atbara, Sudan, 1959. Free on request.

Teaching Aids on Railroad Transportation—This informational material is available to TEACHERS without charge from Association of American Railroads School and College Service, Transportation Building, Washington 6, D. C. 12 p. Illus. in color. ". . . supplementary aids. . . ." Free on request.

Technical Research on European Railroads, by P. V. Garin, manager, Research & Development, Southern Pacific, San Francisco. 69 p. Illus. New York 18, American Society of Mechanical Engineers, 29 West 39th St. 40 cents to ASME members; 80 cents to non-members.

36 Miles of Trouble—The Story of the West River R. R. 40 p. Illus. Brattleboro, Vermont, The Book Cellar. $3.00.

Transport in World Civilization, by James M. Symes. 11 proc. l. Philadelphia 4, Pa., The Pennsylvania Railroad Public Relations Dept. Free on request. Address at Convention of Lions International, Madison Square Garden, New York, July 3, 1959. ". . . First I shall try to demonstrate that transport has had a lot to do with getting men civilized . . . 'Let's look at the record.' . . ."

Transportation of Korea 1957. 82 p. Maps including folded map in color titled: "The Birds-Eye View of Korean Transport" [and] *Brief Information on Transportation of the Republic of Korea Presented to Chinese Economic Mission to Korea, June 24, 1959.* 25 p. Map, Seoul, Korea, Ministry of Transportation. Free on request.

Transportation Plan—National Capital Region—The Mass Transportation Survey Report—1959. 85 [2] p. Maps, Charts. Transmitted to the Congress by President Eisenhower July 10, 1959. Summary in Washington, D. C. Sunday Star, July 12, 1959: D 1-4 under title: *Transportation 1980.* Maps, Illus. Diagrs. with Editorial, C. 2.

Uniform Railway Gauge, by Eric Harding. xvii, 126 p. Melbourne and Sydney, Australia, Lothian Publishing Co. Pty. Ltd. 30 shillings. "Those who are not quite familiar with the break-of-gauge situation in Australia will find it helpful to refer to the map in the pocket at the back of the book which shows the various gauges in color and the mileage of each gauge. A second map (p. 118) shows what the situation will be when the plan now envisaged has been carried out . . ." Preface p. xi. Photographs include "Three trains, three different gauges at Port Pirie. This is the only place in the world where such a picture could be taken at the present time." (Opposite p. 15). Lively cartoons emphasize operating and economic problems.

Venezuelan Railways—List of material for reference use in BRE Library, July 15, 1959, prepared by Barbara D. Peterson, Reference Assistant. 12 proc. l. Free on request to BRE Library, AAR, Washington 6, D. C.

Weite Welt der Eisenbahn—Das Grosse Eisenbahnbuch, by Pit Franckh, compiler. 193 p. Yesterday, Today, Tomorrow in Railroading. Illus. include end-papers in colors of freight and passenger trains, and many locomotives. Stuttgart, Germany, Franckh'sche Verlagshandlung. DM 9.80.

Why Consolidation? by J. W. Barriger. ii, 28 mimeo. l. Remarks at Transportation Management Institute, Stanford University, California, July 17, 1959. Pittsburgh 19, Pa., The Pittsburgh & Lake Erie Railroad Co. Terminal Building. Free on request.

ARTICLES IN PERIODICALS

The Back Road from Jerome to Williams, by Ed Ellinger. Arizona Highways, September 1959: 8-13. Photographs by author include: The picturesque railroad station at Perkinsville (p. 11) ". . . a sleepy little whistle stop whose bucolic quiet is interrupted only once a day by the rumble of a single-track choo-choo on its way to or from the flagstone quarry at Drake . . ." He also mentions George McMillan—" 'the white-collared engineer' because he always wore one with a neat bow tie" when running the oil-burning locomotive of the Verde & Pacific Railroad from 1900 to 1913, when the line that delivered supplies to United Verde Copper Co. in Jerome and hauled out copper bullion, was discontinued. Mr. McMillan now runs a gift shop in Jerome. The first ten miles of the road were built "right over the roadbed of the old Verde & Pacific."

Blueprint To Save Our Railroads—This Senator Warns U. S. of a Grave Problem—In Six Years You May Not Be Able to Buy a Railroad Ticket—Unless We Act Now, by George A. Smathers, a Senator from Florida, As Told to Tony Simon. This Week Magazine, July 26, 1959: 11-12, 14. Port. *Maps: Smathers' Four-Region Plan,* and *Service In Triplicate . . . between Chicago and St. Paul.*

The Budd X 2051 Prototype Railcar on the S. N. C. F., by F. Foret. French Railway Techniques, March-April 1959: 94-104. Illus., Diagrs.

Communications in Philately, by T. J. B. Kidd. East African Railways & Harbours Magazine, Nairobi, East Africa, June 1959: 72-74. Illus.

Congress Hears of Progress on Atom-Power Locomotive. The Machinist, July 16, 1959: 4. Diagram.

The Development During the Past Twenty Years of Installations for Ensuring Safety and Smooth Working on the S. N. C. F., by J. Walter. French Railway Techniques, March-April 1959: 105-113.

Diesel Traction Development in Germany—A Chronological Account from 1913-1939. Diesel Railway Traction, London, England, June 1959: 219-231. Illus.

. . . The English Channel Tunnel . . . will cost about $300 million, may start sometime next year, and may take about three years to finish . . . Vogue, August 1, 1959—People Are Talking About . . . p. 80.

Famous Locomotive Reaches End of Line—in Museum. Rail Times, Lahore, Pakistan, May 1959: 22. Illus. "Built in 1935 at General Electric's Locomotive and Car Equipment Department in Erie, Pennsylvania, the 1800 horse-power unit was the predecessor of to-day's modern diesel-electric passenger and freight locomotives."

The Future of Guaranteed Rates, by Wallace I. Little. Distribution Age, July 1959: 27-29, 62.

Gay Nineties Rendezvous—The Mammoth Cave Railroad, by Elmer G. Sulzer. Kentucky State Historical Society Register, Frankfort, Ky., April 1959: 130-143. Photo of MCR Engine No. 3, Hercules, and Combine No. 2, with note on inside front cover.

Good-bye to New York Central Ferries! Photos by David Plowden. Railroads, October 1959: 17-19.

How Can A Man Make Money? A: Be A Railroad Executive—Rail Chiefs' Pay A Huge Open Book—Form A Reports in I. C. C. Are Public Records That Keep No Secrets—Tuohy of C. & O. Leads . . . Pennsy Roster Longest . . ., by Robert E. Bedingfield. Ports. of 6 presidents. Facsim. of Form A. The New York Times, Sunday, July 26, 1959, Financial Section [3].

Illinois Central Magazine—Golden Anniversary Issue, June 1959. 32 p. Illus. Fifty years of telling the Illinois Central Story. Chicago, Ill., 5 Illinois Central Railroad, 135 E. 11th Place.

Linking the Two Indian Metre-Gauge Systems. Railway Gazette, June 19, 1959: 696. Map. Construction of the Khandwa-Kingoli line through difficult country.

The L. A. Story 1. Diesels where the Dodgers Went—The largest city west of Chicago is an intermediate station on Southern Pacific; end of track for Santa Fe and Union Pacific; and home town of the largest ex-interurban in the land. Come watch the trains in the place nobody's ever called a railroad town, by Donald Sims. Trains, July 1959: 16-23. Illus. and *Maps: Train-Watcher's Guide to L. A.* and *Main Lines West*, p. 21. "...Every rail line into Los Angeles, including the southern San Diego route, bisects a mountain pass. . . ." *2—Over*

the mountains to the City of Angels—There's no Water Level Route into Los Angeles. Which explains why the best in steam has now been succeeded by 6000-horsepower plus diesel tandems. Trains, August 1959: 42-50. Illus. ". . . Los Angeles Union Passenger Terminal, more familiarly known by its initials—LAUPT . . . displays a pattern of tragic peaks perfectly normal to a large terminal . . . An analysis of a train bulletin board shows a total of 44 trains in and out during a 24-hour period—48 during summer months when Santa Fe and Union Pacific split two combined runs into separate entities. . . ."

Magma Railroad, by John B. Hungerford. Photos by Donald Duke. Arizona Highways, September 1959: 2-7. ". . . this railroad, with the possible exception of one or two short switching roads, is the only 100 percent steam-operated common carrier on the American Pacific slope. . . . this railroad has survived through a combination of circumstances. State load limits on highways discourage the general hauling of copper ingots by truck and truckers are not anxious to handle mine timbers, most of them Douglas fir from Oregon. In consequence, the two commodities making up most of the road's present freight volume must be moved by rail. As long as there is copper at Superior, it appears, there will have to be a railroad. In a similar way, conditions peculiar only to the Magma Arizona make all thought of dieselization extremely remote. Because of light rail, 70 pounds to the yard, the stretches of stiff grade, varying from 2 percent to 5 percent, steam power seems best fitted to the road's needs. . . . Of the three locomotives, No. 5 is the work horse and pride of the line. . . . No. 6 . . . switches between smelter and mine on no-train days. No. 7. . . . standby power. . . . All three locomotives shine with copper paint on their smoke boxes. . . ."

The Morning After Steam—the news from the coal country is that the Norfolk & Western has changed more than merely locomotives, by David P. Morgan. Trains, September 1959: 27-33. Illus. *Map: The Strong Get Stronger . . . N & W [plus] VGN,* p. 29.

Most Rails Back Strike Insurance Plan, Group Says—Government View Not Clear . . . ICC May Study Proposal. The Wall Street Journal, August 18, 1959: 26.

Mountain Type Engines, by H. L. Kelso. Railroad Magazine, August 1959: 26-33. Illus.

Needed: A Research Section in Traffic, by Charles A. Taff. Distribution Age, July 1959: 30-31.

New Defense Plan: Missile Firing from RRs. Railway Age, July 6, 1949: 36-37. Illus. "Intercontinental ballistic missiles, ready to fire, may be regular passengers on American railroads starting in 1962."

The New Extra-Long Type Passenger Coaches on the SNCF, by L. Lasson and J. Bulte. French Railway Techniques, May-June 1959: 125-134. Illus. Diagrs.

New Railroad to Serve Southwest, First in 50 Years. The Wall Street Journal, May 26, 1959: 3. ". . . Early this evening . . . the start of operation of the Great Southwest Railroad. The 16-mile-long, $1.5 million industrial railroad [between Dallas and Fort Worth] . . . serving the 5,000 acre Great Southwest Industrial District . . ." Listed

in The Official Guide Index as "Great Southwest, Tex. For Freight Only."

On the Footplate of a '59'—The Largest Loco in the World on the Metre Gauge, by Terry Heron. East African Railways & Harbours Magazine, Nairobi, East Africa, June 1959: 68-71. Illus.

Productivity on the Railways—Report by Economic Section, General Secretariat, UIC. Bulletin of the International Union of Railways (UIC), English ed., May 1959: 169-177.

Proposed Construction in Japan of a New Ultra-Modern Railway Line between Tokyo, Osaka and Kobe. Bulletin of the International Union of Railways (UIC), English ed., May 1959: 179-185. Illus.

Rail Bridge on Anacostia Stirs Boaters [on the river]. Washington, D. C. Evening Star, August 17, 1959: B-1. Illus. ". . . The disagreement is between small-boat owners using the new Prince Georges Marina at Bladensburg and the Pennsylvania Railroad, which owns the 87-year-old museum piece. . . ."

Red China's Railways. Railway Age, July 20, 1959: 35, 38-39. Map. Illus.

Rio Grande Green Light, Souvenir Edition, Summer—1959. "Colorado. 'Rush to the Rockies' Centennial 1859-1959." 8 p. Illus. ". . . contains a few of our rail stories, some of them reprinted from previous copies of GREEN LIGHT."

San Francisco—Rails or Roads? S. F. Bay Area Rail Plan Readied for Vote in 1960 elections. Maps: Today [and] Tomorrow?

The Sources of Transport History—Materials for Transport History Amongst the Records of Parliament, by Maurice Bond. The Journal of Transport History, Leicester University, England, May 1959: 37-52.

Steam Engines on Display—A Detailed List of Retired Steamers on Display North of the Mexican Border, by Jim Scribbins, assisted by Homer G. Benton. Railroad Magazine, October 1959: 31-33, 48, 51-53. Illus. ". . . The list is not complete. . . . the editor of Railroad Magazine will be glad to get additional data for use in a future issue. . . ."

The Suez Canal—Diplomatic Storms Still Loom But UAR Proves An Effective Manager—Nasser Speeds Improvements; Ships Report Fewer Delays Than Before the Takeover—Inge Toft [vessel loaded at Haifa, Israel] *Puts U. S. on Spot,* by James N. Wallace. The Wall Street Journal, August 11, 1959: 1, 13. Dispatch from Port Said, Egypt.

. . . *Tokyo-Osaka Express . . . KODAMA . . . a super-express train of unique, attractive appearance, consisting of 8 air-conditioned 2nd and 3rd class coaches, finished in two-tone color, and provided with buffets* . . . 16 p., Illus. in color. Free on request to Japanese National Railways, Marunouchi, Tokyo, Japan.

Total Mechanization of Track Forces—Another Milestone of B&O Progress. Baltimore and Ohio Magazine, May 1939: 1-3. Illus. ". . . prepared by the Magazine through cooperation of the Brotherhood of Maintenance of Way Employees and management, and appears here with the approval of both." . . . ". . . Thus on June 16, with full mechanization of its track forces, the Baltimore and Ohio will enter a new era of railroading—and in this phase of its operations, something akin to science fiction has been turned into fact."

Tracing the Tracks of a Famed Old Railroad . . . The V and T [Virginia & Truckee], by David F. Myrick. Nevada Highways and Parks No. 3, 1958—Centennial Issue dedicated to Virginia City 1859-1959: 20-23. Illus., part in color.

TOFC Scores Gains in South in Trailer Train Co. Railway Age, August 17, 1959: 9. ". . . only part of the story of piggyback in 1959. . . ."

TRAINS Goes Overseas—1-4, by David P. Morgan. *1. Browsing through the birthplace of steam* [Great Britain], *June 1959:* 24-28; *2. Up to London at 96½ miles per hour . . . July 1959:* 24-28. "Stopwatch summary. Train: Bristolian, Bristol to Paddington, British Railways Western Region. Engine: 4-6-0 No. 7018, Drysllwyn Castle. Driver: R. J. Jones; fireman: G. J. Williams . . ." p. 26. *3. An American translation of Wagons-Lits, S. N. C. F., Le Mistral, and 1-4-1. August 1959:* 24-28, 4. [Railroads in Italy, Switzerland, German Federal in Germany, and Belgium] September 1959: 24-28. Illus.

Type Bo Bo High-Speed Locomotive Single-Phase 25 KV, 50 c/s, by M. Garreau. French Railway Techniques, March-April 1959: 61-93. Illus. Diagrs.

West-to-East Rail Connection through Persia. The Railway Gazette, London, Eng., March 20, 1959: 333. Map. "Closing two gaps in the link between the Bosphorous and Pakistan and India."

Whatever Became of the Ships We Built? Now It Can Be Told—about PCEs, first ships ever built in Chicago. Carbuilder, Pullman-Standard, July-August 1959: 12-14. Illus.

Women in Railroading—Shades of Cato! He warned the Roman Senate of this! Carbuilder, Pullman-Standard, July-August 1959: 22-23. Sketches of women officers at American Council of Railroad Women meeting in Pittsburgh, last March.

World Integration of Freight Handling, by Robert W. Johnson. National Defense Transportation Journal, July-August 1959: 54-55, 65-66.

New Books

Motive Power of the Union Pacific, by William Kratville and Harold E. Ranks. 318 pages, 11x8½, illustrated. Published by Motive Power of the Union Pacific, 2566 Farnam Street, Omaha, Nebraska. Price $15.00.

This is a genuine tribute to the motive power of one of our outstanding western railroads from its inception to date. A chapter is devoted to each of the many types used on this road and the book concludes with a system roster from 1865-1958.

Altho' the U. P. motive power was not especially outstanding in its early years, we must remember that under the Harriman regime and while he controlled the Southern Pacific as well, an attempt was made to standardize certain types of locomotives used on both of these railroads, a step in the right direction. In more recent years, the railroad has had some outstanding locomotives—the "Big Boys," the "Challengers," the 4-12-2 and 4-10-2 types—all have seen service on the Union Pacific.

The accompanying text is of unusual interest and in more instances than one, the authors show a familiarity with their subject brought on by either experience or close association. As for the illustrations—they alone are worth the price of the volume. Even the McKean motor cars are not overlooked—a welcome chapter is devoted to these cars.

The book is a fitting tribute to one of our western railroads and should furnish the answers to any questions that may arise to their locomotives. The authors are to be congratulated upon their achievement in this interesting and worth-while volume.

Wheels Across America, by Clarence P. Hornung. 341 pages, 11x8½, illustrated. Published by A. S. Barnes & Co., 11 East 36th St., New York (16), New York. Price $12.50.

This is a book of pictures and represents the life work of the author in gathering this material for his private collection. As one would expect, the book commences with early colonial days and the carts, carriages and stagecoaches of that period. These are followed by the "iron horse," the horse car and trolley, cable car, elevated railway, bicycle and the self-propelled vehicles. There are 1100 illustrations, adequately described that make up the format of this volume and to one, whose memory goes back to the horse car days, the book is of especial interest. If one's memory does not go back that far, he'll be interested in earlier times than those in which he lived.

The book is not sectional by any manner of means—it covers all of the territory between the two oceans for all have played their part in the use of these many items of transport, but these illustrations and the accompanying text bring back a flood of recollections when this reviewer was many years younger. It's bound to interest the "youngster" past fifty.

History of the Rutland Railway, by William Pletz. 95 pages, 11x8½, illustrated. Published by the Cincinnati R. R. Club and copies may be obtained from the author, 1203 Thurnridge Drive, Reading (15), Ohio. Price $1.50.

This mimeographed book, the effort of the Cincinnati R. R. Club, follows the form in the presentation of the motive power used by Stewart Graham in our Bulletin #90. This work contains more history of the railroad, is accompanied by several good maps and is more complete as a history of the railroad than our own publication which was devoted simply to the motive power. The author should be commended for a fine piece of research which he has presented in a very interesting and straight forward fashion. The edition is limited.

The Maine Two-Footers, by Linwood W. Moody. 214 pages, 9x6, illustrated. Published by Howell-North, 1050 Parker St., Berkeley (10), Calif. Price $6.00.

In the event that any of our membership does not know the railroads included under this title, they are the Sandy River & Rangeley Lakes; Wiscasset, Waterville & Farmington; Monson; Kennebec Central and Bridgton & Saco River Railroads.

The author, a resident of the "Pine Tree State" recounts in his first chapters his visits to these several railroads and the circumstances under which they were made. His succeeding chapters deal with the life and service of these little carriers and their ultimate fate. The book is free from financial details but it contains plenty of lively notes and experiences during their days of operation. It is a fine and interesting account of these two-footers, well illustrated and the folding map that is included in the pocket shows the entire layout of the S. R. & R. L. R. R. These little railroads have had a strong appeal to the railroad historian as well as the "fan" and this book is a very timely work on these railroads and is well worth while.

Early History of the Long Island R. R., 1834-1900, by Mildred H. Smith. 63 pages, 9¼x6. Published by Salisbury Printers, Uniondale, L. I. Copies may be obtained from Ira J. Friedman, 215 Main St., Port Washington, N. Y. Price $3.00.

The Long Island R. R. celebrated its 125th birthday this year and this book was published to commemorate this anniversary. The road was originally part of a rail and steamboat line between Boston and New York and, for a few years it performed that function. However, with the opening of the several railroads connecting these two cities and the steamship lines, this route across Long Island fell into disuse and into the hands of certain stock speculators. It remained for Austin Corbin, with his vision of docks and piers at the eastern tip of Long Island which never materialized, to put the road back into condition and to serve its cities and towns properly and, upon his death, control passed to the Pennsylvania R. R. who needed the road as a part of their extension into New York City.

Altho' there is a map, only one illustration appears in this work and it seems a pity that others could not have been used. The author has presented an interesting account of this very early railroad.

Thirty Six Miles of Trouble, by Victor Morse. 40 pages, 8½x5¾, illustrated. Published by Stephen Greene Press, 120 Main St., Brattleboro, Vermont. Price, paperbound $1.00, boardbound $3.00.

Certain citizens of the towns of Newfane, Townshend and Londonderry wanted a railroad to connect them with the outside world and so the Brattleboro & Whitehall R. R., 3′ gauge, was launched in 1878 and finally completed two years later. The road was intended as part of a route between the Champlain Valley and the Atlantic seaboard. Like many of our smaller roads, the last dollar was spent in construction and finally the Central Vermont was prevailed upon to operate the road under lease. The 1927 flood almost destroyed the road, the C. V. was reluctant to rebuild same because of the losses and so the state of Vermont advanced a sum of money to rebuild the road, the West River R. R. was born and, ten years later the road was abandoned.

The author has given a very interesting and graphic account of this little line, the book is full of whimsical stories of the patience and forbearance of its passengers and patrons. The title of the work certainly applies to this little railroad.

The Cable Cars of San Francisco, by Phil and Mike Palmer. 64 pages, 9x6, illustrated. Published by Howell-North, 1050 Parker St., Berkeley (10), Calif. Price $1.00.

Altho' this little book will have a wider appeal on the Pacific Coast than here in the east, San Francisco has retained this interesting mode of transportation whereas New York City discarded it many years ago.

This little book deals with the subject from "what makes them go" to a description of the lines still in operation. The many illustrations also add detail and color to the text. In this mad day of hustle and bustle of the highway, these unhurried and slow moving cars would seem to refute this day of mad haste. How much longer they will continue is a matter of conjecture but this little work is an interesting insight to a mode of transportation of the past that is still in use today.

The Phantom Brakeman and Other Railroad Stories, by Freeman Hubbard. 91 pages, 7½x5¼, illustrated. Published by Readers' Choice, 33 West 42nd St., New York (36), N. Y. Price 30c.

This little book, in addition to the above title, includes the stories—The Train that Never Came Back; The Broken Lantern; Casey Jones and the Cannonball Express; Signal-Tower Decision and A Depot Rescue. All are good railroad stories that are well worth the reading. There could be a youngster in your neighborhood that might be interested in this book.

Christmas Cards

Our artist-member "Betty" Tone, 55 Vandam St., New York (13), N. Y. announces two new cards for this coming holiday. One will show Erie #921, a 4-6-0 "Mother Hubbard" and the other will depict Nevada Central #2, the Sydney Dillon. Both will have the Christmas star and background. The price is the same as last year—$4.00 for twenty-five including the envelopes and your orders should be addressed as above.

Many of our members were thoughtful enough last year to order these cards and I'm sure that you won't be disappointed if you repeat your order this year.

Mr. John W. Barriger, President, Pittsburgh & Lake Erie R. R., Pittsburgh (19), Pennsylvania wishes your Editor to call the attention of our members to a set of colored post cards and full size reproductions of the Howard Fogg paintings published by that railroad. The set of twenty-five postcards depict scenes along the railroad and both the cards and the full size reproductions may be had by requesting same from Mr. Barriger. You may also obtain from the same source a 44 page sketch of that road which was his address to the New York Society of Security Analysts, Dec. 19, 1958. His address is interesting and the set of cards bring back days when such material was frequently published by the Passenger Departments of our railways.

Men of Steam, a Stan Repp Record, Box 1654-D, Manhattan Beach, California. Price $5.00. There are plenty of recordings these days of locomotive sounds and locomotive whistles but this is a recording of the locomotive engineers telling their own stories. William E. "Bill" Eaton tells of some of his fast runs on the Pennsylvania between Fort Wayne and Chicago; Henry F. "Casey" Jones has handled the "Daylights" on the Southern Pacific; Robert T. "Polecat" McMillan handled the "Panama Limited" on the Illinois Central when he was past 83 years of age and William H. "Billy" Pheils handled the "Red Arrow" out of Detroit on the Pennsylvania. The author interviews these railroaders in their homes which makes a less tense atmosphere than a studio interview. For those that want something different than loud exhausts and locomotive whistles, here is a record that I'm sure you will enjoy and the author is to be congratulated for leaving the beaten path.

Corrections to Bulletin No. 100

Despite unusual care to have everything correct in our centenary number, some corrections will have to be made. In Mr. Warner's article, the illustration credited as a North Pennsylvania locomotive should be Northern Pacific Ry. In my own article the two 4-6-0's received from Baldwin in 1904 were balanced compounds and the I-4 engines had the Baker valve gear.

In the Montpelier & Wells River article, the photograph of the #7 was taken at Barre, Vt. and the "D. R. Sortwell," as shown clearly in the photograph was the #5, built by Manchester in 1890.

In the article on the Goldfield Railroads, Mr. Arthur Davis, Chairman of our Southern California Chapter has called my attention to the following errors:

Page 28—last line—Indian Creek should read Indian Springs as shown in the timetables on pages 29 and 30.

Page 32—line 2—Amargosa Valley of Death Valley. The proper name is Amargosa Desert and lies to the east of Death Valley at a much higher elevation.

Page 27—last line, third paragraph—should read the Pacific Coast Borax Co. and same error is made in page 33, line 4.

Page 36—line 3, paragraph 2—Boran should read Boron and the same applies on page 40, line 2.

Page 39—The Silver Peak R. R. was constructed between Blair Jct. on the Tonopah & Goldfield R. R. to Blair, a distance of 17½ miles. The construction of the road from Blair to Silver Creek is questionable and the author probably meant—Blair.

Your editor regrets these errors but they will creep in despite the utmost care and best of intentions.

In Memory of

JACK ALEXANDER
Life Member
134 Pleasant St., Bradford, Pa.
Who Died in 1957

R. T. BARBOUR
Annual Member
Box #3371, Baytown, Texas
Who Died on April 2, 1958

JOHN W. DODGE
Annual Member
253 N. Swall Drive, Beverly Hills, Calif.
Who Died on June 3, 1959

ROBERT S. HALL
Annual Member
36 Othoridge Road, Lutherville, Md.
Who Died on May 2, 1958

RICHARD G. PURINTON
Annual Member
4011 Lawn Ave., Western Springs, Ill.
Who Died in February, 1959

COL. H. M. SEAMAN
Annual Member
920 Marshall St., Milwaukee, Wis.
Who Died on Feb. 28, 1959

PHILIP S. VAN WYCK
Annual Member
c/o Dunwoody Institute
818 Wayzatta Blvd., Minneapolis, Minn.
Who Died in August, 1958

JAMES L. WATSON
Annual Member
1233 S. Hoover St., Los Angeles, Calif.
Who Died on May 12, 1959